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ALMANAC
1952

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JOHN KIERAN
Editor

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FOREWORD

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EACH YEAR we strive to produce an INFORMATION PLEASE ALMANAC that is better than the previous one. If the Editor or staff were inclined to rest on any achieved laurels, we have constantly looming over us a whip-cracking Simon Legree in the visible form of Dan Golenpaul who, from the day he conceived the idea of this almanac, has never weakened in his determination to make it an ever-changing and an always-improving annual. This year, in addition to making needed revisions and many improvements and bringing text, charts and figures up to date, we have enlarged our Crossword Puzzle Guide that proved such a popular feature when we launched it last year. The reader may notice that we are experimenting in what we think is an improved method of presenting News and Chronology. Because of important action taken by Congress late in 1951, we have done a special section on Federal Taxes apart from the regular tax section. We believe this will be helpful to harassed taxpayers, particularly those who wrestle in agony with their own personal income tax returns. Our chief aim has been simplification. One challenge that has faced us year by year since we set up in the business of putting out almanacs—and this 1952 edition is our sixth effort—has been to improve the index. We are still working hard at it. There is not much sense in providing a great store of facts and figures if the desired information can't be located quickly when needed. This time we have done a thorough overhauling job on the index and we believe it is a long step forward in streamlining that department. Even so, we hope that our subscribers will not only let us know of any difficulties they encounter because of errors or omissions but will also let us have their suggestions for the further improvement of the index or any other section of this book.

We owe much to many persons and organizations for aid and comfort in the production of this volume—to State and City officials, to Marcus Duffield, Sophie Lippman and Gordon J. Kahn for important editorial assistance, to Muriel Hecht and Ronald Kurtz for energetic and efficient staff work above and beyond the call of duty, and to Cyrus LeRoy Baldridge, responsible for make-up and typography, the presentation that makes the difference between a muddled mass of odds and ends and a well-organized gathering of useful and up-to-date information. We hope you like this book and find daily use for it.

JOHN KIERAN
Editor

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NEWS RECORD OF 1951

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(More specific information concerning the Korean War, the Japanese peace treaty, General MacArthur, and the Federal trials is given under separate articles which follow.)

JANUARY, 1951

THE YEAR OPENED in gloom. The President had just declared a national state of emergency. American troops were taking a terrible beating in Korea from the Chinese Communists, and the U. N. forces (mostly our men) were retreating—down past the 38th Parallel—down past Seoul—down how far? Gen. MacArthur was asking Washington whether we had reckoned with the possibility of being driven out of Korea altogether . . . At home, the land echoed with "The Great Debate." Truman, worrying about Europe's military nakedness, wanted to send American troops over there. Sen. Taft said that Truman already had "usurped authority" in plunging into the Korean warfare, and that he had no right to dispatch more troops to Europe. Herbert Hoover said it was no use, anyway; the best we could do against a Russian invasion of Europe would be to fight it by sea and air . . . War scare was in full bloom. Since Christmas, New Yorkers had been buying 25% above normal in department stores. Macy's took full-page ads to tell people: "Buy nothing out of fear."

1 Congress passes $3.3-billion excess-profits tax (signed Jan. 3).

5 Sen. Taft says Truman usurped authority in sending troops to Korea without Congressional approval.

6 Eisenhower flies to Europe for first survey as supreme commander of Western European army.

8 Truman bids nation prepare for full mobilization; asks 50,000-plane industrial capacity.

11 Truman asserts power to send troops abroad without asking Congress.

15 Truman submits $71½-billion budget to Congress; peacetime record.

German court sentences Ilse Koch to life imprisonment for Buchenwald atrocities.

16 Stock margin requirements raised to 75%.

17 Burma court sentences Dr. Gordon S. Seagrave, famed as "Burma Surgeon," to 6 years in prison for aiding rebels.

18 Owners give John L. Lewis' soft-coal miners wage boost of $1.60 a day. (Similar boost for hard-coal miners Jan. 26.)

19 Eric Johnston appointed Economic Stabilization Administrator.

21 More than 100 killed in Alpine avalanches in three countries.

23 Truman sets up Commission on Internal Security and Individual Rights to formulate policy against subversion.

25 West Germany gives labor unions 50% voice in management of coal and steel companies in Ruhr.

26 U. S. freezes most wages as of Jan. 25, most prices as of highest point reached between Dec. 19–Jan. 25.

27 First of series of test atomic explosions takes place in Nevada (others Jan. 28 & Feb. 1).

29–30 René Pleven, French Premier, confers with Truman in Washington on European and Far Eastern problems.

30 Wildcat strike of railroad switchmen cuts train service.

FEBRUARY, 1951

A MINK COAT popped into the spotlight —a good one, too—"natural royal pastel," priced at $9,540. It kept the chill off Mrs. E. Merl Young, a White House stenographer. Prying Senators wondered whether it could be true that her husband wielded "influence" with the Reconstruction Finance Corporation. And they wondered whether it was sheer coincidence that the mink snuggled around the stenographer's shoulders soon after the RFC approved a loan of $175,000 to the furrier. . . . Out in the West, great beautiful flashes lit up the predawn sky as far as San Francisco. Our newest atomic weapons were being tested in the far Nevada wastelands. A gambler in Reno complained that one of the mighty explosions tipped his dice from a "natural" to "snake eyes," and cost him a lot of money . . . In New York, a more sinister gambler was arrested. College kids confessed that they had been bribed to "fix" basketball games in Madison Square Garden. . . . But the nation retained its gay wackiness: climbing up the list of popular songs was a number entitled, "I Taw a Puddy Tat."

1 Eisenhower reports to Congress: We must arm Europe to save U. S.

2 Truman asks Congress to increase taxes by $10 billion.

3 U. S. sharply restricts civilian use of aluminum and rubber.

5 Defense Mobilizer Wilson bids rail strikers return, as most trains halt, including New York commuter trains.

6 84 die as Pennsylvania Railroad train goes off rails on temporary wood overpass at Woodbridge, N. J.

8 Truman orders remaining rail strikers fired unless they return to work by Feb. 10; they do.

14 Israeli government of Premier David Ben-Gurion falls. (It is announced Feb. 25 that cabinet will remain till parliamentary elections are held.)

15 Britain nationalizes most of iron and steel industry.

18 5 New York City basketball players and their briber jailed for "fixing" games.

19 Truman urges 5-man RFC board be replaced by single administrator; Senate continues investigation of "influence."

20 U. S. cuts steel for autos, etc., by 20%.

21 British jet bomber sets Atlantic record: 4 hr. 40 min. from Northern Ireland to Newfoundland.

26 22nd Amendment to Constitution, limiting President (Truman excepted) to two terms, in effect as Nevada ratifies.

27 Czech government arrests Vladimir Clementis, former Communist Foreign Minister, as spy.

Government limits wage raises to 10% over level of Jan. 15, 1950.

28 Organized labor orders its representatives out of all government defense and mobilization agencies as protest against wage-raise limit.

MARCH, 1951

OUR MODERN SYSTEM of communications entered a new era when the big shots of the underworld walked into our parlors via television. Sen. Kefauver and his Senate Crime Investigating Committee presented such eminent racketeers as Frank Erickson, wearing a blue pin-stripe suit and a handcuff; and Frank Costello, who balked at having his face televised but let his fluttering hands get in camera range. People stayed home in millions to watch the wonderful show—much to the annoyance of merchants and movie houses, whose business dwindled. . . . The rest of the Senate, trying to get a word in edgewise and not succeeding too well, was winding up "The Great Debate" which had started in January. The neoisolationists lost. We would send roughly 100,000 more ground troops to Europe to strengthen our democratic allies against a possible Red tidal wave from the East . . . But we learned that totalitarianism wasn't confined to the Soviet Union. One of the great newspapers of the world was murdered when President Perón of Argentina smothered *La Prensa* to death . . . Here at home we shied so very far away from potential dictators that we amended the Constitution for the first time in 18 years. No matter how much we may like a future President, we can't elect him to more than two terms.

2 Cost-of-living index has risen 1.5% to new record of 181.5%. Million workers to get "escalator" pay raises.

4 Barbara Hutton sues for divorce from 4th husband, Prince Igor Troubetzkoy.

5 General Motors reports $834,044,039 profit for 1950—world record.

7 Oscar Collazo, Puerto Rican Nationalist, gets death sentence for trying to shoot his way into President Truman's Blair House residence on Nov. 1, 1950.

9 Herbert Morrison replaces Ernest Bevin as British Foreign Minister.

10 Czechoslovakia banishes Archbishop Josef Beran, Roman Catholic Primate.

12 Supreme Court refuses to review Alger Hiss perjury conviction; he faces 5 years in prison.

Senate Crime Investigating Committee opens hearings in New York City (hearings last till March 21).

16 Congressional committee formed in Argentina to investigate activities of independent newspaper *La Prensa;* paper seized by committee Mar. 20.

19 6 nations initial Schuman plan to pool European coal and steel market.

24 Argentina announces new way to produce atomic energy; American scientists are skeptical.

26 21 Western Hemisphere nations confer in Washington to bolster joint defenses (adjourn Apr. 7).

28 President Vincent Auriol of France pays state visit to U. S.

29 Gov. Dewey appoints N. Y. State Crime Commission to investigate gangsters.

APRIL, 1951

THE NATION was swept by an emotional tempest, the like of which rarely had been seen. Truman fired MacArthur from his Far East commands. At San Gabriel, California, a crowd hanged Truman in effigy. In Los Angeles, the City Council adjourned "in sorrowful contemplation of the political assassination of Gen. MacArthur." Flags were lowered to half-staff in Massachusetts and Ohio. Old friends came to blows: in Seattle, an infuriated logger tried to drown a pal by pushing his head in a bucket of beer because the pal stuck up for Truman. At the height of the hysteria, MacArthur came home, and probably no man in history ever had been acclaimed by so many millions of people in a single week. New Yorkers decorated the sky over his triumphal parade route with a record 2,852 tons of ticker tape and other paper —making a piker out of Lindbergh, who was showered with only 1,750 tons back in 1927. Fifth Avenue's expensive firm of Plummer, Ltd., sold thousands of Toby jugs that re-created MacArthur in porce-

lain; you drank out of the General's head. And there was that MacArthur address to Congress, which squeezed tears out of stony politicians. His last sentence was: "And like the old soldier of that ballad, I now close my military career and just fade away, an old soldier who tried to do his duty as God gave him the light to see that duty. Good-by."

2 Gen. Eisenhower activates SHAPE (Supreme Headquarters Allied Powers, Europe).

4 Senate approves dispatch of 4 Army divisions to Europe, but tells Truman to send no more without congressional consent.

5 Mr. and Mrs. Julius Rosenberg sentenced to death as atom spies; 3rd defendent gets 30 years.

16 Russia announces completion of post-war 5-year plan, increasing production by 73% over 1940.

British submarine *Affray* lost with 75.

22 Aneurin Bevan resigns as British Minister of Labour splitting the party.

23 Czechoslovakia jails AP man William N. Oatis on charges of hostile activities.

26 Truman says worse inflation to come; asks Congress to tighten controls.

28 Hungary releases Robert A. Vogeler, American businessman imprisoned as spy for 17 months.

30 Iran enacts law for nationalization of oil industry.

Truman submits to Congress $60-billion military budget.

MAY, 1951

WHEN THE TEARS dried away, it developed in the long, repetitious Senate inquiry that our topmost military men did not agree with Gen. MacArthur's prescription for ending the Korean warfare. They did not agree that we should "go it alone" (without U. N. backing) in bombing and blockading Red China. The great hullabaloo about MacArthur began to fade away. . . . The warfare in Korea went well. American and other U. N. troops beat back the Communists' spring offensives, inflicting terrible toll . . . In New York, the U. N. moved into its shiny new headquarters in Manhattan; its former home at Lake Success was promptly converted into a war factory. . . . In Nevada, Rita Hayworth moved into new headquarters far removed from Prince Aly Khan. All she asked with a divorce was a $3-million trust fund for their little daughter, whom she promised to rear as a Moslem. . . . And as a sidelight in the march of culture: P. Lorillard Co. closed its 20-million-pounds-a-year chewing-tobacco plant in Middletown, Ohio, because Americans were chewing only half as much tobacco as they "uster" a quarter of a century ago.

1 Senate Crime Investigating Committee report accuses former Mayor O'Dwyer of permitting growth of crime in New York City.

6 Egypt's King Farouk I wed to 17-year-old commoner (his second marriage).

7 Defense Secretary Marshall starts 7-day testimony on Senate witness stand regarding Gen. MacArthur's dismissal.

8 James J. Moran, confidant of former Mayor O'Dwyer, guilty of perjury before Senate Crime Investigating Committee; sentenced (May 11) to 5 years in prison and fined $2,000.

9 77 New York City policemen indicted in bookmaking conspiracy.

10 Panamá revolution deposes President Arnulfo Arias.

14 Israel and Syria accept U. N. cease-fire order, ending weeks of border fighting.

15 Gen. Omar Bradley says MacArthur's plan would get the U. S. into "the wrong war, at the wrong place, at the wrong time and with wrong enemy."

20 Capt. James Jabara, of Wichita, Kans., shoots down his 5th and 6th Russian-built MIG-15s; becomes world's first jet-plane ace.

21 Supreme Court, 6–3, upsets "fair trade" price-fixing laws in 45 states.

23 American Broadcasting Co. merges with United Paramount Theaters.

24 5,000 U. S. Army troops embark to augment Eisenhower's defense troops in Europe.

27–28 Italian municipal elections throw Communists out of power in 755 cities and towns over 10,000 in population.

28 Supreme Court decision gives CBS's color television victory over RCA's.

29 New York City department stores mobbed in price war.

Capt. Charles F. Blair, Jr., flies from Norway to Alaska in first solo flight over North Pole in single-engine plane.

JUNE, 1951

EARLY SUMMER MADNESS hit New York City's big department stores. What Macy's did to Gimbel's was everybody's business. A price war raged. Down went Mixmasters. Down went the best-seller *From Here to Eternity* from $4.50 to $3.74, and only a few stubborn people didn't seem to care. Best department-store bargain: aspirin for 4 cents a bottle (wholesale cost: 43 cents)—and did those squashed shoppers need it! Best cultural bargain: Arthur Murray Dance Studios retailed the $100 club course (including Saturday-night parties for a year) at

$57.50. . . . Sharp on the heels of these miracles came the first commercial broadcasting of color television, courtesy of CBS. Among the colors featured were green (chewing gum), blond (Faye Emerson), blue (autos) and two shades of red (nail polish and Arthur Godfrey's hair). . . . And at the end of this marvelous month came the biggest wonder of all. Russia's Mr. Malik calmly remarked over the radio: Let's call it quits in Korea.

4 Supreme Court, 6–2, upholds conviction of 11 top U. S. Reds.

7 U. S. hangs 7 Nazi war criminals—last of 275 doomed in 1946–47 for execution.

Britain discloses that two of its Foreign Office officials have vanished, maybe defecting to Russia.

12 N. Y. City narcotics inquiry reveals at least 1,500 high-school students use dope.

13 Éamon de Valera back as Prime Minister of Ireland.

17 Communists lose heavily in French parliamentary elections; center parties retain control.

19 Truman signs bill extending draft 4 years and lowering draft age to 18½.

Iran rejects British compromise on oil nationalization and begins to seize Anglo-Iranian Oil Co. properties.

21 3 Western powers break off 16-week Paris conference with Russia, saying it's futile.

25 Commercial color TV inaugurated by CBS.

26 Senate Crime Committee investigates narcotics; hears dope is epidemic among youth.

JULY, 1951

OUR HOPES for peace in Korea soared to the skies. In our optimism we expected a truce to be declared any minute, after the negotiations began in Kaesong. But the truce talks turned out to be an on-again-off-again proposition, and our high hopes withered. Our fury against Russia rose—and rose still further when Czechoslovakia imprisoned Associated Pressman Oatis after extorting from him a blatantly phony confession of spying . . . Papa Government whispered to us that the purchasing power of the dollar had dropped to an all-time low. It was worth 53.9 cents as compared with the good old simoleon of 1939. A market basket of food that cost $5 in 1939 grabbed $11.97 out of Mrs. America's pocketbook now. The New Jersey Bell Telephone Co. put pot roast of whale on the menu in its company cafeteria for employees who rebelled at the high price of more familiar meat. In Portland, Oreg., sale of horse meat tripled, and the *Oregon Journal* cooking column advised readers to use more onions and fewer carrots in cooking pot roast of horse, because the meat tends to be sweet.

1 Gov. Dewey starts 6-week tour of Far East.

2 William N. Oatis, AP correspondent, "confesses" in Czechoslovakia trial to spying; sentenced to 10 years July 4.

3 Navy reveals Douglas Skyrocket plane has flown faster and higher than any other plane; presumably, over 1,000 mph.

5 14 former basketball players from 3 New York City colleges plead guilty to "fixing" games.

11 New York State Court of Appeals upholds releasing school children for religious education.

13 Costliest flood in U. S. history hits Kansas City; damage estimated at over $1 billion in 4 states.

15 Joyce Mathews, ex-wife of Milton Berle, attempts suicide in apartment of Billy Rose.

16 King Leopold III of the Belgians abdicates in favor of his son, who becomes Baudouin I.

19 Generalissimo Franco reforms Spanish Cabinet; reported to have agreed to let U. S. use Spanish air and naval bases.

20 Assassin kills King Abdullah of Jordan in Jerusalem.

21 House passes price-control bill.

24 8 basketball stars of Bradley University, Peoria, Ill., arrested in new basketball fix.

5 European nations reach preliminary agreement to pool all military forces.

25 U. S. indicts for contempt Frank Costello, Joe Adonis and Frank Erickson for failing to answer Kefauver committee questions.

31 Truman signs new National Defense Production Act, but says it does not provide tight enough controls.

AUGUST, 1951

SIX YEARS after the war people took along on vacation, of all things, books about the war. Topping the best-seller lists were James Jones' *From Here to Eternity*, famous for its four-letter words; Herman Wouk's *The Caine Mutiny*, which did very well without naughty words; and Gen. Omar Bradley's *A Soldier's Story*. But apparently people weren't reading so much: membership of the two big book clubs was off one-third from the 1946 high. Movie attendance also was off about one-third (down to 53 million a week). Was television the villain? . . . In rather desultory fashion, we followed the romantic wanderings of Crooner Frank Sinatra and Actress Ava Gardner; said Frank, sol-

emnly, "I've cared for Ava a long, long time, almost a year and a half.". . . And we argued about whether West Point was too harsh in dismissing 90 cadets, including most of the football squad, for cribbing in examinations. . . . Out in Korea droned the seemingly endless negotiations between the Communists and the U. N. over the terms of a truce. The dread suspicion lingered that the Reds were fooling us—using the truce talks as a shield behind which to build up their forces for a mighty offensive.

1 Adm. William M. Fechteler named Chief of Naval Operations.

3 West Point dismisses 90 cadets, including most of football team, for cheating in exams.

7 Navy Viking rocket goes up 135 miles, setting record.

New York City forbids police to join CIO Transport Workers Union.

8 René Pleven becomes Premier of France after month-long Cabinet crisis.

15 West Berlin police turn back "invasion" by 9,000 Communists attending World Youth Festival in East Berlin.

17 Senate investigating committees vote to make no formal report on MacArthur inquiry; 2 days later, 8 Republicans, however, denounce his ouster and our Far East policy.

U. S. arrests 6 more Communist-party officials in fourth roundup since June.

21 U. S. Navy orders construction of world's first atomic submarine.

22 18-day oil negotiations between British and Iranians end in failure.

24 Government eases wage control to allow wages to rise with cost of living; 4 million to get raises.

28 Third roundup of U. S. Communist leaders jails 7 in Hawaii.

General Electric offers 2½% wage raise plus escalator clause.

30 U. S. signs mutual defense treaty with Philippines.

Navy rocket plane breaks altitude record, going more than 13.7 miles up.

Truman invokes Taft-Hartley law against copper strike.

SEPTEMBER, 1951

SIX YEARS after defeating Japan, we signed a treaty that practically invited Japan to rearm. . . . Sugar Ray Robinson recovered the middleweight championship from Randy Turpin in the tenth round by a TKO. The most celebrated fight of the month, though, was between two movie actors, Tom Neal and Franchot Tone. Both were cooing with blonde Barbara Payton, who kept changing her mind about which one to marry. Neal broke Tone's nose and cheekbone and lost the girl to him. . . . Most celebrated party was tossed by a Mexican millionaire, Don Carlos de Beistegui, who invited 3,000 of the world's ermine-and-coronet set to his palace-warming in Venice; the party cost him a mere $50,000. . . . Best-advertised girl was Colleen Kay Hutchins, of Salt Lake City, chosen Miss America of 1952—the oldest to hold that title (25) and the heaviest (143 pounds).

1 Fishing boat capsizes off Montauk, L. I., drowning 38.

3 U. S. Labor Day traffic deaths are 419; record toll.

9 Field Marshal Alexander Papagos' party wins Greek election.

10 Britain imposes economic sanctions against Iran.

Graft trial of 18 New York City policemen opens.

U. S. plane violates Kaesong neutrality by error; U. N. apologizes (Sept. 11).

12 Gen. George Marshall resigns as Secretary of Defense; Robert A. Lovett succeeds him.

13 Western Big Three agree to sign "peace contract" with Germany, after conference at Washington.

15 U. N. Balkans committee accuses Albania, Bulgaria, Poland, Czechoslovakia, Hungary and Rumania of trying to foment Communist revolution in Greece.

17 Senate Judiciary Committee blocks Truman appointment of two Illinois federal judges opposed by Sen. Paul H. Douglas (D., Ill.).

18 Congress passes largest military construction program: $5.8 billion, including funds for bases throughout non-Communist world.

19 Bookmaker Harry Gross refuses to testify at New York City trial of 18 policemen; they go free.

20 Ford Frick elected Commissioner of Baseball.

North Atlantic Council, meeting in Ottawa, votes to admit Greece, Turkey.

23 George VI of England operated on for lung ailment.

25 Brooklyn grand jury demands New York City oust several dozen high police officers who were in graft ring.

26 U. S., Britain and France propose revising Italian peace treaty to let Italy rearm.

27 Harry Gross, kingpin New York bookmaker, sentenced to 12 years in prison.

Iranian troops seize huge Anglo-Iranian Oil Co.'s refinery at Abadan.

29 U. S. population center is farm 8 miles north-northwest of Olney, Ill.

OCTOBER, 1951

THE FLAMES OF REVOLT against the British lit up the Moslem skies over the Middle East. Iran succeeded in kicking out the British, seizing their fabulously wealthy oil; a few days later the Egyptians tore up a treaty and tried to oust British troops from the Suez Canal zone. To the British it was the crumbling of a once-great empire. Said the British: We will stay, even if we have to shoot; and they did shoot. . . . In their hour of crisis and bewilderment, the British returned to power (albeit by a minority vote) a man named Churchill. . . . In Denver the State Industrial Commission ruled that a University of Denver football player was entitled to back pay for the time he had been docked when unable to play because of an injury. . . . In a town named Nahant, Mass., a fifteen-year-old baby-sitter found $18,000 in bills in a doctor's home, and promptly hopped off for New York with two girl pals to spend $3,000 in a day for clothes, jewelry and high living. . . . The Department of Agriculture displayed a gray dress that looked like flannel, but was made of corn.

1 U. N. Security Council takes up British-Iranian oil dispute over protest of Iran and Russia.

2 Joint Chiefs of Staff decide U. S. air power must be raised from 90 to 140 groups.

3 Truman announces Russia has exploded second atom bomb; Russia confirms Oct. 6.

8 Princess Elizabeth and Prince Philip fly to Canada for month's tour.

Mohammed Mossadegh, Premier of Iran, flies to New York to state his side of oil dispute with Britain.

Egypt announces it will oust British from Suez and Sudan.

12 Congress passes $56.9-billion appropriations for armed forces.

13 William M. Boyle, Jr., quits as Democratic National Chairman after Congressional inquiry linked him to RFC "influencing."

15 Iran's Premier Mossadegh, addressing U. N. in New York, denies it has jurisdiction over oil dispute with Britain.

Egypt rejects U. S. plan for joint defense of Middle East.

16 Sen. Robert A. Taft announces candidacy for Republican Presidential nomination in July, 1952.

Pakistan's Premier, Liaquat Ali Khan, killed by assassin.

British, refusing to remove troops from Suez, kill 12 Egyptian rioters.

19 Congress passes $5,691,000 tax bill.

Truman signs resolution ending state of war with Germany.

20 82nd Congress adjourns until Jan. 8. It voted record peacetime appropriations of $91 billion.

Truman nominates Gen. Mark Clark as first Ambassador to Vatican.

22 British seize rail centers in Suez.

Truman gives Philip C. Jessup interim appointment as delegate to U. N. General Assembly, despite Senate's failure to approve.

White House discloses third Soviet atomic explosion.

23 Truman announces he will not give Gen. Clark interim appointment.

26 New York longshoremen, on strike 12 days, reject Truman appeal to return to work.

28 U. S. tests atomic "baby bomb" in Nevada.

31 Frank E. McKinney, Indiana banker, named new Democratic National Chairman.

Princess Elizabeth and Prince Philip of England visit Washington.

NOVEMBER, 1951

1 Prices on liquor, cigarettes, automobiles go up as new tax law takes effect.

5,000 troops take part in first atomic warfare maneuver in history in Nevada.

3 Eisenhower arrives in U. S.; summoned by Truman for conference about NATO; refuses to talk politics.

5 U. S., Britain and France ask U. N. to survey possibility of free elections throughout Germany.

5 Nobel Peace Prize for 1951 awarded to Leon Jouhaux, French trade-union leader.

6 N.Y.C. elects Rudolph Halley, former Kefauver committee counsel, as President of City Council.

7 U. S., Britain and France offer arms-reduction plan at U. N. General Assembly session in Paris. (Nov. 8—Russia scoffs at it.)

9 25-day New York longshoremen's strike, longest and costliest since war, ends in failure.

11 Juan D. Peron re-elected President of Argentina by 2-to-1 vote.

13 U. N. General Assembly defeats Russia on four items of the agenda: (1) Seating Red China will not be discussed; (2) Investigation of the possibility of all-German free elections will be considered; also (3) Yugoslavia's charge that Russia and its satellites seek to

overthrow Marshal Tito; and (4) Nationalist China's charge that Russia threatens the peace of the Far East.

14 Gov. Earl Warren, of California, announces his candidacy for Republican Presidential nomination.

15 Nobel award for chemistry divided between Professors Edwin M. McMillan and Glen T. Seaborg of University of California. Sir John Douglas Cockcroft and Dr. Ernest T. Walton share physics prize. Pär Lagerkvist received the Nobel Prize for Literature.

18 Premier Mossadegh of Iran flies home after six-week visit in U.S.; our mediation failed to achieve Anglo-Iranian agreement over oil nationalization.

28 NATO Conference in Rome ends after decision on 100 divisions by 1954.

Results of the 1951 British Election

Parliamentary elections held in Oct. and Nov. returned 321 Conservatives, 295 Labour, 6 Liberals and 3 Independents. Labour received 13,894,000 votes, Conservatives 13,693,000, Liberals 723,000, Communists 22,000, and others 177,000.

The Cabinet was selected as follows: Winston Churchill (Prime Minister, Minister of Defense, First Lord of the Treasury), Anthony Eden (Secretary of State for Foreign Affairs), R. A. Butler (Chancellor of Exchequer), Harold Macmillan (Minister of Housing & Local Gov't), Lord Woolton (Lord President of the Council [with responsibility for Food & Agriculture]), Viscount Swinton (Chancellor of the Duchy of Lancaster, Deputy Leader of House of Lords, Minister of Materials), Lord Simonds (Lord Chancellor), Sir David Maxwell Fyte (Secretary of State for Home Department, Minister for Welsh Affairs), Oliver Lyttelton (Secretary of State for Colonies), James Stuart (Secretary of State for Scotland), Lord Leathers (Secretary of State for Co-ordination of Transport, Fuel & Power), Sir Arthur Salter (Secretary of State for Economic Affairs), Lord Ismay (Secretary of State for Commonwealth Relations), Peter Thorneycroft (President of Board of Trade), Sir Walter Monckton (Minister of Labour & National Service), Marquess of Salisbury (Lord Privy Seal, Leader of House of Lords).

HEADLINE STORIES OF 1951 AND RECENT YEARS

The Korean War

KOREA, an independent kingdom in ancient times, was placed under Chinese sovereignty in 1627, and was annexed by Japan in 1910. At the end of World War II in 1945, Russian troops occupied the northern half of Korea down to the 38th Parallel, and American troops occupied the southern half. The intention was to hold elections and set up an independent republic governing the entire country.

Russia, however, refused to allow a U. N. commission to enter North Korea in order to supervise free elections. Instead, the Russians set up a puppet government, which, on May 1, 1948, proclaimed jurisdiction over the whole country. Its capital was Pyongyang. With U. N. supervision, elections were held in South Korea, and the Republic of Korea was proclaimed, with Seoul as capital, Aug. 15, 1948.

Russia announced on Jan. 1, 1949, that its occupation troops had been withdrawn from North Korea. The U. S. withdrew its last troops from South Korea on June 29, 1949.

Early on the morning of Sunday, June 25, 1950 (Korean time), the Communist North Korean army invaded the Republic of Korea, attacking southward across the 38th Parallel. This was Saturday afternoon, June 24, New York time.

In the following chronology, Korean dates are used for events that took place there, American dates for events that took place here.

June 25, 1950—The North Koreans invaded the Republic of Korea.

June 27 (morning)—Truman ordered U. S. air and sea aid to the South Koreans; (afternoon)—The U. N. Security Council (at that time boycotted by Russia) asked U. N. members to "furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack."

June 28—Reds captured Seoul.

July 1—A battalion of U. S. 24th Infantry Division was flown to Korea.

July 5—U. S. troops battled the Reds south of Seoul.

July 8—Gen. MacArthur was named Supreme Commander for the U. N. by Truman.

During the rest of July, the small American forces were swept back in retreat down the peninsula, along with South Korean troops.

Aug. 3—The Allied forces set up a Pusan perimeter defense behind the Naktong.

Sept. 6—The Reds captured Pohang, high point of their offensive that failed to drive the U. N. forces out of Korea.

Sept. 15—The U. S. 10th Corps made an amphibious landing at Inchon, the port for Seoul, cutting behind the North Korean army on the Pusan perimeter.

Sept. 26—MacArthur announced the capture of Seoul.

Oct. 4—The U. N. General Assembly Political Committee tacitly approved invading North Korea in a resolution recommending "all appropriate steps be taken to ensure conditions of stability throughout Korea."

Oct. 8—The U. S. 1st Cavalry made the first crossing of the 38th Parallel into North Korea by American forces.

Oct. 14—Truman met MacArthur on Wake Island.

Oct. 19—The Allies captured Pyongyang.

Oct. 25—The Chinese Communists intervened in Korea by crossing the Yalu River from Manchuria.

Oct. 30—South Korean troops reached the Manchurian border; were beaten back.

Nov. 6—MacArthur disclosed that Chinese Communist troops had entered the Korean war against the U. N.

Nov. 21—The U. S. 7th Division unit reached the Manchurian border.

Nov. 26—The Chinese opened a massive offensive, hurling the U. N. forces back in retreat.

Dec. 5—U. N. troops abandoned Pyongyang, the North Korean capital.

Dec. 8–24—The U. N. forces trapped at Changjin Reservoir fought their way out and were evacuated by sea from Hungnam.

Dec. 27—Lt. Gen. Matthew B. Ridgway took command of the U. S. 8th Army after Lt. Gen. Walton H. Walker's death at the front.

Jan. 4, 1951—The Reds recaptured Seoul; the Allies retreated 30 miles south of the city.

Jan. 13—U. N. votes new Korean peace appeal (rejected by Red China Jan. 17).

Jan. 25—The Allies returned to the offensive.

Feb. 1—U. N. General Assembly condemns Red China as aggressor by 44–7 vote.

Feb. 7—U. N. rejects, 49–5, Russian charges of American aggression against China.

Feb. 12—Chinese launch another major offensive (abandoned Feb. 18).

March 15—The Allies reoccupied Seoul, which the Reds abandoned without a fight.

March 24—MacArthur invited the Reds to confer with him in the field on a truce. (*This was a large factor in MacArthur's subsequent dismissal. He had been notified by Washington a few days previously that a similar statement was in preparation by the main Allies for issuance to the Reds.*)

March 31—American tank patrol recrosses 38th Parallel into North Korea.

April 6—MacArthur's letter to Rep. Joseph Martin (R., Mass.) was disclosed; MacArthur favored stronger war measures, including the use of Chinese Nationalists.

April 11—Truman removed MacArthur from all commands; replaced him with Ridgway.

April 19—MacArthur addressed a joint session of Congress.

April 23—First Red spring offensive forced Allies back, but was halted in a week.

May 17—The second Red spring offensive was launched, but the Allies broke it and drove the enemy back as much as 20 miles north of the 38th Parallel.

May 18—U. N. votes arms embargo against Communist China, 47–0.

June 23—Russia's U. N. delegate, Yakov Malik, proposed a truce in Korea.

July 8—A preliminary truce talk was held at Kaesong.

July 10—Top-level truce talks were opened at Kaesong.

(*Truce talks were halted July 12, 13, 14, until Reds yielded to U. S. demand that they neutralize Kaesong. Talks again were halted July 22, 23, 24, at the request of Reds, over issue of withdrawal of all foreign troops from Korea.*)

Aug. 11—Korean truce negotiations resumed after 6-day suspension as Reds promise to keep Kaesong neutral.

Aug. 23—Communists break off Korean truce talks.

Sept. 20—Communists offer to resume Kaesong truce talks in Korea.

Sept. 24—Communist and U. N. liaison officers meet to plan resumption of truce talks; Ridgway demands (Sept. 27) that talks be moved 8 miles from Kaesong to Songhyen.

Oct. 4—Korean Reds reject proposal. Ridgway demands site in no man's land.

Oct. 8—Liaison teams resume talks.

Oct. 25—Talks resume at Panmunjom.

Nov. 14—Col. James Hanley, 8th Army Judge Advocate chief in Korea, asserts Chinese Communists have massacred 2,513 American prisoners of war since Nov. 1, 1950; and North Korean Communists about 3,700.

Nov. 17—Gen. Ridgway verifies Communist slaying without giving figures. He expresses regret that statement was issued without proper co-ordination; and regrets anguish inflicted upon relatives of U. N. troops listed as missing.

Nov. 17—U. N. offers compromise on cease-fire line in truce negotiations. Present battle-line to be accepted for 30 days, pending agreement on remaining truce items—armistice supervision and exchange of prisoners. If no agreement after 30 days, cease-fire line will shift in accordance with battle-line.

Nov. 27—Cease-fire line agreed upon.

Nov. 29—Infantry action goes into a lull in Korea, awaiting truce negotiations.

General MacArthur

Douglas MacArthur was born in Little Rocks barracks, Ark., Jan. 26, 1880, son of an Army officer. He rose to the highest position in the U. S. Army, serving as Chief of Staff from 1930–35. In 1935 he went to the Philippine Islands to organize and command their armed forces. World War II caught him there, and the Japanese invasion forced him to the island of Corregidor. From there he was ordered by President Roosevelt to escape by submarine to Australia early in 1942.

In the subsequent Pacific campaign against Japan, MacArthur was in command of the South West Pacific forces. Adm. Chester W. Nimitz commanded the Pacific Fleet. Both MacArthur and Nimitz signed the Japanese surrender terms aboard the U.S.S. *Missouri* on Sept. 2, 1945.

MacArthur was thereupon assigned to be commander of the Allied occupation forces in Japan. He also held the title of U. S. Commander in Chief in the Far East. He acquired a third title after the Korean war broke out: U. N. Commander in Chief in Korea.

At 1 A.M. on April 11, 1951, President Truman announced that he had relieved Gen. MacArthur of all three commands. In a radio address that evening, the President said: "We do not want to see the conflict in Korea extended. We are trying to prevent a world war—not start one. . . . But you may ask, why can't we take other steps to punish the aggressor? Why don't we assist Chinese Nationalist troops to land on the mainland of China? If we were to do these things, we would be running a very grave risk of starting a general war. . . . A number of events have made it evident that Gen. MacArthur did not agree with that policy. I have therefore considered it essential to relieve Gen. MacArthur so that there would be no doubt or confusion as to the real purpose and aim of our policy."

Gen. MacArthur, stating his case before Congress, said: "I made clear that if not permitted to destroy the enemy built-up bases north of the Yalu, if not permitted to utilize the friendly Chinese force of some 600,000 men on Formosa, if not permitted to blockade the China coast to prevent the Chinese Reds from getting succor from without, and if there was to be no hope of major reinforcements, the position of the command from the military standpoint forbade victory."

MacArthur further said: "I would have supplied her [Communist China] with an ultimatum that she would either come and talk terms of a cease-fire within a reasonable period of time or her actions in Korea would be regarded as a declaration of war against the nations engaged there."

July 8, 1950—MacArthur was named supreme commander of U. N. forces in Korea by President Truman.

Aug. 28—MacArthur's letter to the Veterans of Foreign Wars convention in Chicago became public, despite President Truman's order that it be suppressed. In the letter, MacArthur said the U. S. would have to keep Formosa in friendly hands in order to complete our chain of island defenses in the Far East.

Sept. 1—President Truman went on the radio to declare that the U. S. did not want to annex Formosa or to aggrandize ourselves in any other way. (At that time, we were trying to calm Red China's fears in the hope of keeping her out of Korea.)

Oct. 15—President Truman flew to Wake Island in the Pacific to inform MacArthur about U. S. policy.

In late November, MacArthur issued statements to the effect that we were fighting a new war against Communist China's intervention in Korea.

Dec. 6—An order was issued from Washington to all military commanders abroad (meaning MacArthur) to issue no policy statements without clearance from Washington.

March 20, 1951—Washington informed MacArthur that a truce invitation to the Reds was in preparation, in consultation with our main allies.

March 24—MacArthur issued his own truce invitation to the Communists. The joint Allied statement was abandoned.

April 5—MacArthur's letter to Rep. Joseph Martin (R., Mass.) was disclosed: MacArthur favored using Chinese Nationalists to combat Chinese Communists.

April 11—Truman removed MacArthur from all Far East commands; replaced him with Gen. Matthew B. Ridgway.

April 18—MacArthur returned to U. S. mainland for first time in 15 years; San Francisco welcomed him tumultuously.

April 19—MacArthur urged Congress to take military measures against Red China. His address ended as follows: "And like the old soldier of that ballad, I now close my military career and just fade away, an old soldier who tried to do his duty as God gave him the light to see that duty. Good-by."

April 20—New York City's greatest reception welcomed MacArthur; 7½ million lined parade route.

May 3—Senate Armed Services and Foreign Relations Committees opened joint inquiry into MacArthur's dismissal. Sen.

Richard B. Russell (D., Ga.) was the chairman. MacArthur was the first witness, testifying through May 5.

The following were the twelve subsequent witnesses: Secretary of Defense George C. Marshall, Gen. Omar T. Bradley, Gen. J. Lawton Collins, Gen. Hoyt S. Vandenberg, Adm. Richard P. Sherman, Secretary of State Dean Acheson, Lt. Gen. Albert C. Wedemeyer, former Secretary of Defense Louis Johnson, Vice-Adm. Oscar Badger, Maj. Gen. Patrick Hurley, Maj. Gen. David C. Barr, Maj. Gen. Emmett O'Donnell, Jr.

June 25—Senate inquiry committees closed MacArthur inquiry with 2,045,000 words in the record; it was decided not to issue formal reports of the findings.

Aug. 19—8 Republicans on Senate inquiry committees made public their conclusions. They agreed that Truman had authority to dismiss MacArthur, but they criticized the way he did it and they denounced Administration policy in the Far East. (Sens. Bridges, Wiley, Smith, Hickenlooper, Knowland, Cain, Brewster, Flanders.)

Aug. 24—Sen. Henry Cabot Lodge, Jr. (R., Mass.) agreed in large part with his Republican colleagues, but said "differences arose which made it clearly impossible for him [MacArthur] to continue."

Sept. 5—Sen. Wayne L. Morse (R., Oreg.) said Truman was justified in recalling MacArthur, who probably destroyed the best chance for peace in Korea.

Japanese Peace Treaty

JAPAN signed the surrender on Sept. 2, 1945, and occupation began, with General of the Army Douglas MacArthur as the supreme commander for the Allied powers. On Nov. 3, 1946, Emperor Hirohito promulgated Japan's new constitution, renouncing war and establishing a democratic form of government.

In approaching the peace treaty, the U. S. was determined not to permit Soviet Russia to have veto power in the drafting of it, for that power had made impossible the completion of treaties with Germany and Austria. Therefore, we negotiated the treaty with other countries through diplomatic channels, with John Foster Dulles, Republican adviser to the State Department, in charge of the negotiations.

In its final form, the treaty was considered extraordinarily mild—a "pact of reconciliation," as Dulles termed it. The mildness was due basically to the desire of the U. S. to draw Japan into friendly association with the non-Communist world. No restriction was put on Japan's rearming, because we wanted Japan to develop defenses against possible Russian attack. Pending the development of such defenses, the U. S. signed an agreement with Japan (on Sept. 8, a few hours after signing the peace treaty) permitting American military forces to remain in Japan indefinitely, not as an occupation force, but as a defense force.

The possibility of Japan's rearming to the point of becoming a threat alarmed such countries as Australia and New Zealand. Their fears were largely allayed when, in Sept. 1951, the U. S. signed treaties of mutual defense with them and with the Philippines. The treaties provided that each country "recognizes that an armed attack in the Pacific area on any of the parties would be dangerous to its own peace and safety, and declares that it would act to meet the common dangers."

The Japanese peace treaty provided for no cash reparations, because the U. S. thought Japan's economy could not provide them without danger of throwing the country into bankruptcy. Lack of cash reparations so angered Burma that it refused to sign the treaty. The Philippines were angry, too, but signed.

Britain objected to the fact that the treaty did not place commercial restrictions on Japan to prevent its becoming a severe competitor with Britain, but the U. S. persuaded Britain that Japan could not exist without building up trade.

Russia's objections to the peace treaty were many. The amendments offered at the San Francisco conference by Andrei A. Gromyko—and voted down—would have changed the character of the treaty completely and would have paved the way for Japan to become a Soviet satellite. The proposed amendments would have forbidden American defense troops to remain in Japan; would have taken the Ryukyu and Bonin Islands out of American control; would have ceded Formosa and the Pescadores to Communist China; and would have given Russia formal title to the Kuriles and South Sakhalin (which Russia occupies without formal authorization). Other proposed Russian amendments would have provided for the "demilitarization" and the "democratization" of Japan and would have "protected" Japan against "American monopolies [that] could enslave the Japanese economy."

India boycotted the treaty-signing, giving reasons similar to Russia's. India's chief objection was the continuing presence of American military forces in Japan. This, said India, was not "a decision taken by Japan in the full enjoyment of her freedom as a sovereign nation."

Japan's attitude toward the treaty was expressed at the San Francisco conference by Premier Shigeru Yoshida, who praised it as "an instrument of reconciliation," but said that certain of its territorial provisions "cause us pain and anxiety." He pointed out that Japan had lost 45% of its territory by the treaty, and appealed for the eventual return of the Ryukyu and Bonin Islands.

July 11, 1947—The U. S. proposed a general conference on drafting the Japanese peace treaty under a two-thirds vote rule. Russia rejected that and demanded that the big powers draft the treaty under the unanimity rule that would give each country the veto power.

Aug. 12—U. S. rejects Soviet proposal.

May 12, 1949—The U. S. ended removal of Japanese plants as reparations and emphasized making Japan self-sufficient.

Nov. 5—The U. S. completed a tentative draft of the proposed treaty.

April 6, 1950—John Foster Dulles was appointed Republican adviser to the State Department.

June 21-27—Dulles held the first conference in Tokyo with MacArthur on the treaty.

Oct. 16—Dulles distributed treaty "principles" to interested countries, including Russia. Dulles had several talks with Soviet Envoy Malik, then Malik broke off the talks. Dulles also made trips to London and Paris to discuss the treaty.

June 14, 1951—U. S., France and Britain agree on draft of Japanese peace treaty.

July 20—The U. S. invited 50 nations that declared war on Japan to a San Francisco conference on Sept. 4 for the signing of the treaty.

July 12—U. S. publishes final draft.

Aug. 12—Russia accepted the invitation and announced it would present "proposals" at San Francisco.

Aug. 13—Washington and London circulated the final text of the treaty.

Aug. 16—The U. S. told Russia the treaty was already completed and amendments would not be in order at San Francisco.

Aug. 26—India denounced the proposed treaty and refused to attend the San Francisco signing.

Sept. 4—President Truman's address opened the San Francisco conference.

Sept. 5-6—Andrei A. Gromyko, chief Soviet delegate, tried to filibuster. He called the conference illegal because Communist China was not invited. Secretary Acheson, presiding, ruled him out of order. Next, Gromyko attacked the rules of procedure. He was voted down every time; supported only by Poland and Czechoslovakia.

Sept. 8—49 nations, including Japan, signed the treaty. It was to come into force when ratified by a majority of the nations that carried the burden of the fighting, plus Japan. Of those countries present, only Russia, Poland and Czechoslovakia refused to sign.

Trials

Involving Perjury, Conspiracy and Espionage

AT THE POTSDAM CONFERENCE in the summer of 1945, President Truman disclosed to Premier Stalin the topmost secret of the war—that the U. S. had developed the atomic bomb. Stalin did not say so, but he knew it already through his spies.

The chief informer for Russia was Dr. Klaus Julius Emil Fuchs, a German-born scientist who headed the British atomic-research plant at Harwell. He began giving information to Russia in 1942, and was able to give much more data when he came to the U. S. to work on the atomic-bomb project at Los Alamos, N. Mex. When arrested, he said he gave the atomic information to Russian agents for idealistic reasons, considering Russia an ally against Nazi Germany, from which he was a political refugee. He received $280 from the Russians, plus his expenses.

In the U. S., the FBI went to work to find out who helped Dr. Fuchs convey the information to Russia, and this resulted in a chain of arrests.

Feb. 3, 1950—British arrested Dr. Klaus Fuchs.

March 1—Britain sentenced Fuchs to 14 years in prison for giving atomic secrets to Russia.

The arrest of Fuchs had been made on information supplied by the American FBI. Our FBI agents talked to Fuchs in prison and—

May 23—Harry Gold, Philadelphia biochemist, was arrested as a co-spy with Fuchs. He confessed to having been a courier for the atomic spy ring in the U. S., and was sentenced to 30 years in prison.

June 16—David Greenglass, a former Army sergeant at the Los Alamos atomic plant, was arrested.

July 17—Julius Rosenberg, a New York City electrical engineer whose parents were born in Russia, was arrested as an atomic spy. On Aug. 11, Rosenberg's wife Ethel, mother of two, was also arrested.

March 6, 1951—Mr. and Mrs. Julius

Rosenberg went on trial in New York as atomic spies, along with Morton Sobell, a radar expert. David Greenglass had pleaded guilty. At the trial he testified against his sister, Ethel Rosenberg, and his brother-in-law, Julius. He said he had given Julius a description of the Nagasaki atom bomb —at the urging of Ethel—for transmission to Russia, via Harry Gold.

April 5—Mr. and Mrs. Julius Rosenberg were sentenced to death. Morton Sobell was sentenced to 30 years in prison; Greenglass, to 15 years. The Rosenbergs' appeal stayed their execution.

Government Espionage

The Communists also were ferreting out secrets within the U. S. government.

In Aug. 1948, Whittaker Chambers, then a senior editor of *Time* magazine (later resigned), testified before the House Committee on Un-American Activities that he had been a Communist spy in Washington in the 1930s and that Alger Hiss, at that time a State Department official, had passed State Department secrets to him for transmission to Russia in the years 1934–37. Hiss, who in 1948 was president of the Carnegie Endowment for International Peace, denied the charges under oath and said Chambers was lying.

Aug. 17, 1948—Hiss met Chambers and admitted he had once known him under a different name.

Dec. 6—Chambers produced microfilms of copied State Department documents which he had hidden in a hollowed-out pumpkin on his farm. He said Hiss had given him access to the documents.

Dec. 15—Hiss was indicted for perjury in New York for having denied he passed secrets to Chambers.

July 8, 1949—Jury disagreed after 6-week trial of Hiss.

Jan. 21, 1950—Hiss found guilty of perjury in second trial, which lasted 9 weeks. His sentence was 5 years in jail and $10,000 fine.

March 12, 1951—Supreme Court upheld conviction. Hiss jailed on March 22.

Judith Coplon was a small, dark girl of 28 and had been an honor graduate of Barnard College. She worked in the Department of Justice and had access to some of its records of Communist activities in the U. S.

March 4, 1949—Coplon was arrested on a New York City street corner in the company of Valentin A. Gubitchev, a Russian on the staff of the U. N. In her purse were notes of confidential Justice Department information. Coplon asserted she met Gubitchev for love, not for passing secrets.

June 30—Coplon was found guilty in Washington of stealing Justice Department secrets and was sentenced to from 40 months to 10 years in prison. This conviction was upheld by the U. S. Court of Appeals in Washington on June 1, 1951.

March 7, 1950—Coplon and Gubitchev were found guilty of espionage conspiracy after being tried together in New York. On March 9, both were sentenced to 15 years in prison. Gubitchev's sentence was suspended on condition that he leave the U. S., which he did at once.

Dec. 15—U. S. Court of Appeals in New York reversed the New York conviction of Coplon as a spy, saying her "guilt is plain," but her arrest by the FBI without a warrant illegal. The government appealed to the Supreme Court.

William W. Remington, 32 years old, was an economist in the Department of Commerce and a graduate of Dartmouth. In 1948, Elizabeth Bentley, who described herself as a former Communist courier, testified he had been a Communist; and he was suspended from his job in the Department of Commerce for 8 months while the Loyalty Review Board investigated. The Board cleared him, and he was reinstated. He sued Elizabeth Bentley and two other defendants for slander. The case was settled out of court in Feb. 1950, and Remington was reported to have collected $10,000 in damages.

June 8, 1950—Remington was indicted by a Federal Grand Jury in New York for perjury, accused of having lied when he denied former membership in the Communist party.

In the subsequent trial, his divorced wife testified she married him on the condition he remain a Communist.

Feb. 7, 1951—Remington was convicted of perjury for having denied Communist-party membership.

Feb. 8—Remington was sentenced to 5 years in prison and fined $2,000.

Aug. 22—Court of Appeals reversed the Remington conviction on the ground that the judge was lax in defining a Communist to the jury. On Oct. 25 Remington was reindicted by N. Y. Federal grand jury.

Twelve top leaders of the American Communist party were arrested by the Department of Justice on July 20, 1948. They were charged with having conspired to teach and advocate the overthrow of the government by force or violence. Such conspiracy was illegal under the Smith Act, which Congress passed in 1940. The Smith Act was applicable to leaders of the Communist party because they did the conspiring and the teaching of revolutionary theory and tactics. This law did

not make it illegal merely to be a member of the Communist party, nor did any other law. The party as such was not outlawed.

Jan. 17, 1949—Trial of 11 top Communists began, with Federal Judge Harold R. Medina presiding.

Oct. 14—The 11 convicted.

Oct. 21—Judge Medina sentenced 10 of the Communist leaders to 5 years in prison, and the eleventh to 3 years, taking into account his good record in World War II.

June 4, 1951—The Supreme Court upheld constitutionality of the Smith Act and the conviction of 11 Communist leaders.

June 20—21 more U. S. Communist-party leaders (in addition to the previous 11) indicted for conspiracy to teach or advocate overthrow of the government by force or violence.

July 2—7 of the original 11 Communist leaders went to prison; 4 others, also convicted, vanished.

July 26—FBI jailed 12 more Communist-party leaders, in third roundup.

Aug. 17—U. S. arrested 6 more Communist-party leaders on the Pacific coast, in fourth roundup.

Aug. 28—U. S. arrested 7 more Communist-party leaders in Hawaii, in fifth roundup.

When the 4 convicted Communists failed to show up on July 2, 1951, to start serving their prison terms, their bail of $20,000 apiece was forfeited in Federal court. The bail had been put up by the Civil Rights Congress, an organization listed as subversive by the Attorney General. The secretary of the Civil Rights Congress bail fund was Frederick Vanderbilt Field, who was known as a millionaire "angel" of Communist causes. He was a descendant of Commodore Cornelius Vanderbilt, famous railroad builder. He refused in court to show records of the Civil Rights Congress or tell who were the subscribers to the bail fund.

July 6, 1951—Field was given a 90-day jail sentence for contempt of court. His later refusals to testify brought him, on July 30, an additional sentence of 6 months for contempt.

July 9—3 other trustees of the Civil Rights Congress bail fund were sentenced to 6 months for contempt of court for refusing to testify about its records. They were Dashiell Hammett, mystery-story writer, W. A. Hunton, prominent in left-wing Negro affairs, and Abner Green.

At this point, 4 of the "second team" Communists (the 21 indicted on June 20) also were missing. In their case the question of bail did not arise, because they had failed to appear to plead guilty or not guilty. (Gus Hall was captured in Mexico, Oct. 8.)

FEDERAL TAXES

IN THE SPACE of 15 months after the outbreak of warfare in Korea, three new tax increases became law. They were designed to raise nearly $16 billion in additional revenue out of the pockets of American taxpayers. This was more money than the Federal Government spent for all purposes in the year 1941.

The newest of the tax laws, which became effective Nov. 1, 1951, was first requested by President Truman on the previous Jan. 12. He said we must "tax until it hurts" in order to "maintain a balanced budget and finance the cost of national defense on a 'pay-as-we-go' basis." On Feb. 2 he gave specific figures. He predicted that a balanced budget would require $16.5 billion more in revenue. He asked Congress to increase taxes immediately to raise $10 billion in new revenue, implying that he would ask for the rest later.

It took Congress nearly 9 months to pass the tax increase, and the amount to be raised by it was estimated at $5.7 billion instead of the $10 billion requested.

In the course of the Congressional consideration of the bill, there were three main criticisms:

1. The bill did not raise enough revenue. It would leave the Government running a huge deficit, which would (a) invite inflation, and (b) run up our national debt to unmanageable proportions. This criticism was leveled by New Deal Democrats.

2. The bill put too much of the burden on the lower income groups.

3. The bill raised taxes too high. It would strain our economy and interfere with the incentives that make our profit system work. This criticism was leveled by some Republicans.

The impact of the bill on individual income-tax payers was as follows:

Up to $2,000 of income, the rate was increased by a flat 11%. From $2,000 to $26,000, the increase was approximately 11¾%. Above $26,000 it declined. On $40,000, for example, the increase percentage was only 4.3, and on $100,000 it was 1.1. Congress set a ceiling of 88% on the

amount of any individual's income that could be collected in taxes.

The varying criticisms of the bill led to an unusual happening in Congress. The bill had been passed in different versions in Senate and House, and conferees from each house had agreed upon a compromise version. This was in mid-October, 1951, and Congress was in a hurry to adjourn. Normally, both House and Senate would have agreed upon the compromise version almost automatically.

The House, to its own surprise, voted down the bill in the compromise version, and sent it back to committee. Liberal Democrats voted against the bill because they thought it was insufficient and unfair; conservative Republicans because it seemed too big. Those legislators did not wish to have their names associated with it. But both groups realized, in the main, that a bill to increase taxes must be passed and that a bad bill would be better than none. Though voting against it, they thought it would pass anyway. After having thus killed the bill, Congress quickly brought it to life again with very slight changes. Twenty-eight Representatives changed their minds.

The line-up on both votes follows:

Oct. 16—The House rejected, 203-157, the Senate-House compromise version of a $5.732-billion tax-increase bill. Vote against: Democrats, 64; Republicans, 139. Vote for: Democrats, 122; Republicans, 34; Independent, 1.

Oct. 18—Senate-House conferees drew up a new $5.691-billion tax-increase bill. It was passed in the Senate by voice vote.

Oct. 19—The House approved, 185–160, the new tax bill and sent it to President Truman. Vote for: Democrats, 147; Republicans, 37; Independent, 1. Vote against: Democrats, 34; Republicans, 126.

Federal Taxes Under the New Law

Survey by

The Research Institute of America, Inc.

(For information on State Taxes, see pp. 320–322)

SINCE the rate increases for individuals apply only from Nov. 1, 1951, and for corporations from April 1, 1951, the full impact of the new law does not hit taxpayers until 1952. For that year, the average individual tax load is 29% over pre-Korean War taxes, while the average corporate tax is 53% higher.

The new law did more than raise income-tax rates. By more than 100 amendments to the existing law, it made numerous changes and innovations in personal and corporation taxes, provided new tax breaks for business, eased rules on taxation of income from natural resources, gave relief to employees and executives, and extensively changed the excess-profits tax passed early in 1951. In addition, excise taxes were broadly affected, minor changes were made in the estate tax, and a number of income-tax loopholes were closed.

Highlights of the new law include:

Personal income-tax relief: Unmarried persons maintaining a household were given almost half the benefits of income splitting allowed to married couples; definition of a dependent for exemption purposes was broadened; medical-expense deductions were increased for taxpayers 65 and over; benefits of casualty-loss deductions were widened for individuals; and exemptions for servicemen in combat and persons working abroad were extended. Moreover, executives, employees and their beneficiaries were given special tax advantages for benefit payments and retirement-pay arrangements. Tax relief was granted to persons selling a residence and buying or building a new one within a specified time.

Corporation changes: Extensive changes in income and excess-profits taxes on corporations included relief in connection with liquidations and reorganizations, debt cancellation, tax on excessive accumulation of profits, venture capital companies. In addition, excess-profits-tax credits and ceilings were altered, and numerous advantages were given to special corporations in the method of computing their tax.

Special advantages for business: Tax savings obtained through family partnerships were made easier, farmers were given a break on sales of unharvested crops and livestock, past operating loss deductions could be spread over a longer period, and percentage depletion on minerals was made more favorable, with special advantages allowed for mine exploration and development expenses.

Excise taxes: Many excise taxes were increased and others repealed or modified. A new feature was the 10% tax on gambling.

Estate taxes: Minor relief was granted in connection with the tax paid by an individual's estate when he dies.

Loopholes closed: Changes were made in computation of capital gains, certain sales to related taxpayers were denied benefits of capital-gains treatment, savings banks and building and loan associations were made subject to tax, and taxation of business income of exempt organizations was extended.

Income Tax on Individuals

Who is liable: If you've earned $600 or more during the year you must file a return and pay the tax due. This is required whether you're single, married, divorced, widowed or under 21. Also, if you earned less than $600 but received other income from interest, dividends, rents, pensions, etc., which brings your income up to $600, a return is required.

Certain individuals are also subject to self-employment tax, which is computed on the income-tax return, even though it is a social-security tax. If you are subject to this tax and your earnings are $400 or more, you must file an income-tax return.

What are your deductions: The more deductions you have, the less tax you pay. You have a choice of listing your deductions or claiming a "blanket" deduction equal to about 10% of your adjusted gross income. Examples of actual deductions which the average individual may take are: business expenses, auto-damage loss, auto-license fees, bad debts, uninsured casualty losses, charitable contributions (within limits), medical expenses (within limits), state income, gasoline, sales, and property taxes, interest on loans, mortgages, etc., and union dues.

The optional deduction is used in place of actual deductions and amounts to roughly 10 per cent of the taxpayer's income after business and employment expenses have been deducted. However, the maximum optional deduction is $1,000 for single persons or married people filing joint returns and only $500 for married persons filing separate returns.

What are your exemptions: The taxpayer is entitled to a $600 exemption for himself and each of his dependents. To claim someone as a dependent you must furnish over half the money spent for his support, his taxable income must be less than $600, and he must be closely related to you. These are considered "close" relatives:

Son and daughter (including an adopted child), grandchild, great-grandchild, etc.
Stepchild
Son-in-law and daughter-in-law
Parents, grandparents, etc.
Stepfather and stepmother
Father-in-law and mother-in-law
Brother, sister, half-brother, half-sister
Brother-in-law and sister-in-law
Uncle, aunt, nephew and niece (but not if related to you only by marriage)

The taxpayer's wife is entitled to a $600 exemption for normal tax and for surtax, whether on a separate or a joint return. But the husband may claim his wife's $600 exemption on *his separate return* if she has no income and is not claimed as a dependent by another taxpayer.

Any taxpayer 65 years or older is entitled to a special $600 exemption *in addition to* his regular $600 personal exemption. An additional $600 exemption is also available where a taxpayer's spouse reaches 65. To get this additional exemption, the taxpayer himself need not be 65. If both are 65 or over, there will be two additional exemptions of $600 each, one for the husband and one for the spouse.

A blind taxpayer is entitled to a $600 special exemption. This exemption for the blind is in addition to the $600 personal exemption and the $600 old age exemption. A special $600 exemption is also available for a spouse who is blind even though the taxpayer is not. This exemption also is in addition to the spouse's personal and old age exemptions.

The extra old age exemption and exemption for the blind are available only to a taxpayer and his spouse. There is no additional $600 exemption for supporting a dependent who is 65 or over or blind.

Husband-wife Income Splitting

A husband and wife, regardless of whether they live in a community property or a non-community property state, are entitled to split their combined income for tax purposes by filing a joint return.

Where one spouse earns more than the other, the exercise of this privilege to split income will almost always result in a lower tax burden by subjecting the income to lower surtax rates.

The actual method of computing the "split-income" tax on a joint return is to arrive at the taxable net income and divide that in half. The tax is then calculated on half. The final tax due is double the amount of tax figured on one-half. Note that a husband and wife are entitled to split their income for tax purposes even though the wife has neither income nor deductions of her own.

To show how the split income computation is made, assume a married taxpayer has a net income in 1951 of $12,000 after deductions and exemptions. He files a joint return with his wife. In figuring the tax, he divides the $12,000 income in half. He then computes the tax on $6,000. This equals $1,396. He then multiplies that amount by two to arrive at the final tax liability of $2,792.

Tax rates: The basic individual tax consists of a flat percentage (called the normal tax) on normal-tax net income and a graduated percentage (called the surtax) on surtax net income. As noted above, the new tax law raised individual rates for the calendar year 1951, with a still higher increase for 1952.

For *1951* there is a normal tax of 3% and a surtax scaled from 17.4% to 88%. The maximum total tax cannot exceed 87.2%

Combined Normal Tax and Surtax Rates

Net income after deductions and exemptions (Column 1) More than	(Column 2) But not over	Calendar Year 1951 Tax on amount in Col. 1	Calendar Year 1951 Plus this % of excess	Calendar Year 1952 Tax on amount in Col. 1	Calendar Year 1952 Plus this % of excess
0	$ 2,000.00	0	20.4%	0	22.2%
$ 2,000.00	4,000.00	$ 408.00	22.4	$ 444.00	24.6
4,000.00	6,000.00	856.00	27.0	936.00	29.0
6,000.00	8,000.00	1,396.00	30.0	1,516.00	34.0
8,000.00	10,000.00	1,996.00	35.0	2,196.00	38.0
10,000.00	12,000.00	2,696.00	39.0	2,956.00	42.0
12,000.00	14,000.00	3,476.00	43.0	3,796.00	48.0
14,000.00	16,000.00	4,336.00	48.0	4,756.00	53.0
16,000.00	18,000.00	5,296.00	51.0	5,816.00	56.0
18,000.00	20,000.00	6,316.00	54.0	6,936.00	59.0
20,000.00	22,000.00	7,396.00	57.0	8,116.00	62.0
22,000.00	26,000.00	8,536.00	60.0	9,356.00	66.0
26,000.00	32,000.00	10,936.00	63.0	11,996.00	67.0
32,000.00	38,000.00	14,716.00	66.0	16,016.00	68.0
38,000.00	44,000.00	18,676.00	69.0	20,096.00	72.0
44,000.00	50,000.00	22,816.00	73.0	24,416.00	75.0
50,000.00	60,000.00	27,196.00	75.0	28,916.00	77.0
60,000.00	70,000.00	34,696.00	78.0	36,616.00	80.0
70,000.00	80,000.00	42,496.00	82.0	44,616.00	83.0
80,000.00	90,000.00	50,696.00	84.0	52,916.00	85.0
90,000.00	100,000.00	59,096.00	87.0	61,416.00	88.0
100,000.00	150,000.00	67,796.00	89.0	70,216.00	90.0
150,000.00	200,000.00	112,296.00	90.0	115,216.00	91.0
200,000.00		157,296.00	91.0	160,716.00	92.0

(If the income includes any partially exempt interest, the tax is reduced by 3% of that interest, or by 3% of net income, if less than the interest.)

of net income. For *1952* the normal tax is also 3%, but the surtax ranges from 19.2% to 89%. The maximum total tax cannot exceed 88% of net income.

As an example of the tax computation, assume that a single individual has a 1951 net income of $1,800 after deductions and exemptions. Since this falls into the first bracket ($0–$2,000) the tax is determined by multiplying $1,800 by 20.4%. This gives a tax due of $367.20.

Or, assume that the same individual has net income of $4,500:

Tax on $4,000	$856
Tax on next $500 at 27%	135
Tax due	$991

Head of a household:

For 1952 and later years the 1951 Revenue Act eases the tax burden of certain single individuals who maintain a household which includes one or more children, grandchildren, parents or other specified relatives. A single person who meets the requirements of "head of a household" computes his tax for these years under special surtax rates. The tax cannot exceed 88% of net income.

Servicemen: An enlisted man, warrant officer or commissioned warrant officer is exempt from tax on all service pay received for any month in which (1) he had *any* active service in Korea after June 24, 1950; or (2) he was hospitalized as a result of wounds, disease or injury incurred in such service. Commissioned officers are exempt on the first $200 of pay for such month. Income-tax liability of servicemen dying in Korea or dying as a result of Korean service after June 24, 1950 is cancelled.

What form to use:

FORM 1040A. Lower bracket taxpayers whose earnings are primarily from salaries may file a simplified Form 1040 A. This eliminates the necessity of any tax computation by the taxpayer, since the collector computes the actual amount of tax liability. His calculation will be on the basis of the tax table which is part of Form 1040, and which automatically allows the standard deduction of approximately 10%. If any additional tax is due, the collector will send the taxpayer a bill for the amount. If the amount of taxes withheld from wages plus any amount paid as an estimated tax exceed the total tax due, a refund will be sent to the taxpayer. A taxpayer qualifying as head of a household cannot obtain the benefit of special rates if he files Form 1040 A. He must file Form 1040.

FORM 1040. Every individual who does not meet all the requirements of Form 1040A, or who wants to make his own computations, must use Form 1040. If his adjusted gross income is less than $5,000 and he is otherwise qualified, he may convert the form into a "short" form by tearing off pages 3 and 4, filing only pages 1 and 2. If he does so, he must use the tax table method of computing his liability.

Head of a Household (Combined normal tax and surtax)

Net income after deductions and exemptions

(Column 1) More than	(Column 2) But not over	Calendar Year 1952 Tax on amount in Column 1	Plus this % of the excess
0	$ 2,000.00	0	22.2%
$ 2,000.00	4,000.00	$ 444.00	23.4
4,000.00	6,000.00	912.00	27.0
6,000.00	8,000.00	1,452.00	29.0
8,000.00	10,000.00	2,032.00	34.0
10,000.00	12,000.00	2,712.00	35.0
12,000.00	14,000.00	3,412.00	41.0
14,000.00	16,000.00	4,232.00	44.0
16,000.00	18,000.00	5,112.00	47.0
18,000.00	20,000.00	6,052,00	48.0
20,000.00	22,000.00	7,012.00	52.0
22,000.00	24,000.00	8,052.00	54.0
24,000.00	28,000.00	9,132.00	57.0
28,000.00	32,000.00	11,412.00	60.0
32,000.00	38,000.00	13,812.00	63.0
38,000.00	44,000.00	17,592.00	66.0
44,000.00	50,000.00	21,552.00	71.0
50,000.00	60,000.00	25,812.00	72.0
60,000.00	70,000.00	33,012.00	73.0
70,000.00	80,000.00	40,312.00	77.0
80,000.00	90,000.00	48,012.00	79.0
90,000.00	100,000.00	55,912.00	81.0
100,000.00	150,000.00	64,012.00	85.0
150,000.00	200,000.00	106,512.00	88.0
200,000.00	300,000.00	150,512.00	91.0
300,000.00		241,512.00	92.0

(If the income includes any partially exempt interest, the tax is reduced by 3% of that interest, or by 3% of net income, if less than the interest.)

Partnerships: A partnership as such does not pay tax. The individual partners pick up their share of the partnership net profit or loss and report it in their individual returns.

Estates and trusts: Every fiduciary (except a receiver who is in possession of only part of an individual's property), or one of two or more joint fiduciaries must file a return for the following individuals, estates and trusts for which he acts:

(a) Every individual whose gross income for the taxable year is $600 or more;

(b) Every estate which has a gross income of $600 or more;

(c) Every trust which has a *net* income of $100 or more, or which has a *gross* income of $600 or more;

(d) Every estate or trust of which any beneficiary is a nonresident alien.

Corporation Taxes

Corporate income-tax rates for the calendar year 1951 are 28¾% normal tax on all income and 22% surtax on income over $25,000. For the calendar year 1952, the rates are 30% normal tax on all income and 22% surtax on income over $25,000.

In addition to income taxes, corporations are subject to an excess-profits tax at the rate of 30% on adjusted excess-profits net income. This is net income after certain excess-profits-tax adjustments, *less* a special excess-profits credit allowed to reflect normal earnings. The minimum annual credit is $25,000. The excess-profits tax computed under the 30% rate is subject to specified ceilings. For the calendar year 1951, the ceiling rate applicable to most ordinary business corporations is 17¼% of excess-profits net income.

Corporations which unreasonably accumulate earnings to avoid the surtax on individual stockholders are also subject to a 27½–38½% penalty surtax.

Gift Tax

Individuals who make gifts are subject to a gift tax based on the value of the property given. However, exemption is provided for a certain amount of gifts and the tax does not apply until the exemption is exceeded. The exemptions work thus:

During his lifetime, an individual may give away $30,000 taxfree. In addition, the first $3,000 of gifts made by him to each person in any one year is also exempt. For example, a taxpayer may give his wife and child $3,000 apiece each year without incurring gift tax and without using up any of his $30,000 lifetime exemption.

Gifts by husbands and wives:

Husbands and wives are entitled to special tax advantages regardless of whether the taxpayers live in a community property or a non-community property state.

After deducting exemptions, the value of gifts is taxed at the following rates:

(A) Amount of net gifts equaling—	(B) Amount of net gifts not exceeding—	(C) Tax on amount in column (A)	(D) Rate of tax on excess over amount in column (A) Per Cent
.....	$ 5,000	.....	2¼
$ 5,000	10,000	$ 112.50	5¼
10,000	20,000	375.00	8¼
20,000	30,000	1,200.00	10½
30,000	40,000	2,250.00	13½
40,000	50,000	3,600.00	16½
50,000	60,000	5,250.00	18¾
60,000	100,000	7,125.00	21
100,000	250,000	15,525.00	22½
250,000	500,000	49,275.00	24
500,000	750,000	109,275.00	26¼
750,000	1,000,000	174,900.00	27¾
1,000,000	1,250,000	244,275.00	29¼
1,250,000	1,500,000	317,400.00	31½
1,500,000	2,000,000	396,150.00	33¾
2,000,000	2,500,000	564,900.00	36¾
2,500,000	3,000,000	748,650.00	39¾
3,000,000	3,500,000	947,400.00	42
3,500,000	4,000,000	1,157,400.00	44¼
4,000,000	5,000,000	1,378,650.00	47¼
5,000,000	6,000,000	1,851,150.00	50¼
6,000,000	7,000,000	2,353,650.00	52½
7,000,000	8,000,000	2,878,650.00	54¾
8,000,000	10,000,000	3,426,150.00	57
10,000,000	.....	4,566,150.00	57¾

A gift tax return (Form 708) and payment of the tax are due on March 15th following the close of the calendar year in which the taxable gifts are made.

1. *Gifts between husband and wife:* On every gift made from husband to wife, or vice versa, in a non-community property state, the donor will be entitled to a "marital" deduction equal to one-half the value of the gift. This, in effect, reduces the taxable value of the gift by one-half. Gifts of this type in community property states are treated the same way by virtue of the local community property law. In other words, since under the community property law the wife would be considered to own one-half of any community property given to her by her husband, the taxable value of the husband's gift would be only one-half the value of the community property transferred to the wife.

2. *Gifts by husband and wife to third persons:* A husband and wife in a non-community property state are entitled to "split" gifts made by either of them to some third person, if the other spouse consents to such splitting. The effect of this privilege is to treat a gift made by the husband, for example, as though made one-half by him and one-half by his wife. The resulting tax advantage is that the husband and wife have two full sets of gift tax exemptions and exclusions to apply against a gift which is really made by only one of them.

In community property states this consequence follows as a matter of local community property law, with both husband and wife considered the equal donors of any community property given by either one of them to a third person.

Estate Tax

The estate tax is based on the net value of an individual's property which is transferred to others as a result of his death. The calculation of the actual estate tax due is somewhat complicated by the necessity of figuring two separate taxes.

The net tax payable is: (1) the estate tax, consisting of (a) the gross tax computed under Schedule I less (b) the credits allowable against such tax, plus (2) the additional estate tax, consisting of (a) the tentative tax computed under Schedule II less (b) the credits allowable against such tentative tax:

(1) *The estate tax* (1926 Act as amended —specific exemption of $100,000 in determining net estate).

(a) *Schedule I:*

	Per cent
First $50,000 of net estate	1
In excess of	
$50,000 up to $100,000	2
100,000 " " 200,000	3
200,000 " " 400,000	4
400,000 " " 600,000	5
600,000 " " 800,000	6
800,000 " " 1,000,000	7
1,000,000 " " 1,500,000	8

In excess of			Per cent
1,500,000	" "	2,000,000	9
2,000,000	" "	2,500,000	10
2,500,000	" "	3,000,000	11
3,000,000	" "	3,500,000	12
3,500,000	" "	4,000,000	13
4,000,000	" "	5,000,000	14
5,000,000	" "	6,000,000	15
6,000,000	" "	7,000,000	16
7,000,000	" "	8,000,000	17
8,000,000	" "	9,000,000	18
9,000,000	" "	10,000,000	19
10,000,000			20

(b) *Credits:*

(1) The amount of gift taxes paid under the Gift Tax Act of 1932 on gifts by the decedent which must be included in his gross estate, not in excess of the proportion of the gross tax computed under the above schedule which the value of the gift property bears to the value of the gross estate.

(2) The entire amount of gift taxes paid under the Revenue Act of 1924 on gifts by the decedent which must be included in his gross estate.

(3) The amount of succession taxes paid to any state or territory in respect to property included in the gross estate, not exceeding 80 per cent of the tax computed under Schedule I before deducting credits Nos. 1 and 2.

(2) *The additional estate tax* (1932 Act as amended—specific exemption of $60,000 in determining net estate).

(a) *Schedule II:*

	Per cent
First $5,000	3

Net estate			Tax on lower amount	Per cent on excess
$5,000	to	$10,000	$150	7
10,000	"	20,000	500	11
20,000	"	30,000	1,600	14
30,000	"	40,000	3,000	18
40,000	"	50,000	4,800	22
50,000	"	60,000	7,000	25
60,000	"	100,000	9,500	28
100,000	"	250,000	20,700	30
250,000	"	500,000	65,700	32
500,000	"	750,000	145,700	35
750,000	"	1,000,000	233,200	37
1,000,000	"	1,250,000	325,700	39
1,250,000	"	1,500,000	423,200	42
1,500,000	"	2,000,000	528,200	45
2,000,000	"	2,500,000	753,200	49
2,500,000	"	3,000,000	998,200	53
3,000,000	"	3,500,000	1,263,200	56
3,500,000	"	4,000,000	1,543,200	59
4,000,000	"	5,000,000	1,838,200	63
5,000,000	"	6,000,000	2,468,200	67
6,000,000	"	7,000,000	3,138,200	70
7,000,000	"	8,000,000	3,838,200	73
8,000,000	"	10,000,000	4,568,200	76
10,000,000	"	and over	6,088,200	77

(b) *Credits:*

(1) The gross tax under Schedule I.

(2) The amount of gift taxes paid under the Gift Tax Act of 1932 on gifts by the decedent which must be included in his gross estate, not credited against the estate tax under Schedule I and not in excess of the proportion of the tenative tax under Schedule II less the gross tax under Schedule I which the value of the gift property bears to the gross estate.

If the gross estate of decedent dying after October 21, 1942, exceeds $60,000 (insurance included), the legal representative is required to file notice within 2 months after qualification and to file a return within 15 months after decedent's death. Tax is due within 15 months after decedent's death on Form 706. Tax is to be paid by the legal representative out of estate funds. Taxes unpaid after 15 months from the date of death draw interest at 6 per cent per annum, except that where an extension of time for payment is granted, the rate is 4 per cent for a period beginning 18 months after date of death until end of extension period.

Effective with respect to decedents dying on or after January 1, 1948, property left by a husband to his wife, or vice versa, will generally be treated the same for estate tax purposes whether the taxpayer dies in a community property or in a non-community property state.

In non-community property states this result is accomplished by means of a "marital" deduction. Upon the death of husband or wife, the entire value of whatever passes to the surviving spouse outright is deductible from the gross estate subject, however, to the following ceiling—the deduction may not exceed 50 per cent of the gross estate reduced by deductible claims and expenses.

In community property states the same result is obtained by giving effect to the local community property law which usually treats one-half of the community property as already belonging to the wife. Therefore, only one-half of the community property left by the husband to his wife is taxable in his estate.

Excise Taxes

Manufacturers' excise taxes based upon the amount of sales made by a manufacturer are levied at the following rates:

Automobile truck chassis and bodies	8%
Passenger automobile chassis and bodies, including motorcycles	10%
Parts and accessories	8%
Firearms, shells and cartridges	11%
Gasoline, per gallon	$.02
Tires, per lb.	.05
Inner tubes, per lb.	.09
Lubricating oils, per gallon	.06
Matches:	
fancy wooden, per 1,000	.055
ordinary, per 1,000	.02
Mechanical refrigerators and quick-freeze units	10%

Excise Taxes—(Cont.)

Mechanical and ballpoint pens and pencils, and lighters 15%
Pistols and revolvers 11%
Television and radio receiving sets and parts 10%
Musical instruments, phonographs and records 10%
Sporting goods (other than fishing rods and tackle) 10%
Fishing rods and tackle 15%
Electric, gas, and oil appliances 10%
Cameras, lenses and film 20%
Business and store machines 10%
Electric light bulbs 20%

Retailers' excise taxes based on sales by retailers are levied as follows:

Jewelry 20%
Furs 20%
Toilet preparations (except for babies) 20%
Luggage, etc. 20%
Watches with retail price of $65 or less 10%
Alarm clocks with retail price of $5 or less 10%
Diesel fuel for trucks, per gallon ..... $.02

Stamp taxes on original issue and transfer of securities are as follows:

Bonds:
- issue, per $100 face value or fraction ..... $.11
- transfer, per $100 face value or fraction ..... .05

Stocks:
- issue
  - par value, per $100 or fraction ... $.11
  - no par value, per $20 of actual value or fraction where less than $100 per share ..... .03
  - no par value, per $100 of actual value or fraction where more than $100 per share ..... .11
- transfer
  - par value, per $100 aggregate face value or fraction:
    - selling price less than $20 a share ..... .05
    - selling price more than $20 a share ..... .06
  - no par value, per share:
    - selling price less than $20 a share ..... .05
    - selling price more than $20 a share ..... .06

Admissions and dues are taxed on the basis of the admissions and the dues paid:

Admissions:
- per $.05 or major fraction ..... $.01
- charges in excess of estab. price by other than ticket offices, on excess 20%
- by proprietors and employees, on excess 50%
- lease of boxes or seats, on equivalent box office price 20%
- cabarets, roof gardens and similar entertainment 20%

Dues:
- annual dues in excess of $10 ..... 20%
- initiation fees over $10 ..... 20%

Telephone, telegraph, radio and cable facilities are taxed on the amount of charge for the services:

Telephone conversations
- $.25 and over 25%

A 15% tax is levied upon amount paid by subscribers for local telephone service and for toll charges of less than 25 cents.

Telegraph messages 15%
Radio and cable messages 15%
Leased wire or special services 25%
Intern'l dispatches and messages .. 10%
Wire and equipment services 8%

Leases of safe deposit boxes are taxed on the basis of the amount paid for use of the box:

On lease price 20%

Tobacco taxes are as follows:

Cigars:
- weighing not over 3 lbs. per M .. $ .75
- weighing over 3 lbs. per M
  - if retail price 2½¢ or less 2.50
  - if retail price over 2½¢ up to 4¢ 3.00
  - if retail price over 4¢ up to 6¢ 4.00
  - if retail price over 6¢ up to 8¢ 7.00
  - if retail price over 8¢ up to 15¢ 10.00
  - if retail price over 15¢ up to 20¢ 15.00
  - if retail price over 20¢ 20.00

Cigarettes:
- weighing not over 3 lbs. per M .. 4.00
- weighing over 3 lbs. per M 8.40

Tobacco and snuff (per pound) ... .10

Cigarette paper:
- package, book, or set of more than 25 and less than 50, per package .005
- package, book, or set of more than 50, not more than 100, per package ..... .01
- package, book or set of more than 100 papers, per 50 papers in tubes, per 50 tubes or fraction .005 .01

Liquor taxes are as follows:

Distilled spirits, per proof gallon ...$10.50
Imported perfumes containing distilled spirits 10.50
Rectified spirits, additional tax on each proof gallon ..... .30
Still wines:
- up to 14% alcohol per gallon .... .17
- over 14% up to 21% per gallon .. .67
- over 21% up to 24% per gallon ... 2.25
- over 24% alcohol 10.50

Artificially carbonated wine, per half-pint ..... .12
Liqueurs, cordials and similar compounds, per half-pint ..... .12
Champagne and sparkling wine, per half-pint ..... .17
Fermented liquors, per barrel 9.00

Transportation taxes are levied on fares over 35 cents at the rate of 15%.

Wagers placed with gamblers are taxed at 10%.

THE UNITED STATES

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STATES, TERRITORIES AND CITIES

(State flower, bird, etc. are official unless otherwise indicated; dates in parentheses are those of adoption. Name of Governor is followed by party designation and date of expiration of term. Area is total of land and inland water. All 1950 population figures are final. Largest cities include incorporated places only.)

ALABAMA

Capital: Montgomery.
Governor: Gordon Persons (Dem., 1955).
Organized as territory: Mar. 3, 1817.
Entered Union & (rank): Dec. 14, 1819 (22).
Seceded from Union: Jan. 11, 1861.
Re-entered Union: July 13, 1868.
Present constitution adopted: 1901.
Motto: *Audemus jura nostra defendere* (We dare defend our rights).
State flower: Goldenrod (1927).
State bird: Yellowhammer (1927).
State song: "Alabama" (1931).
Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Mardi Gras (Shrove Tuesday); Thomas Jefferson's Birthday, Apr. 13; Confederate Memorial Day, Apr. 26; Jefferson Davis' Birthday, June 3.
Nickname: Yellowhammer State.
Origin of name: From Muskogee Indian tribe meaning "good land."
1940 population & (rank): 2,832,961 (17).
1950 population & (rank): 3,061,743 (17).
1940–50 population change: +8.1%.
Area & (rank): 51,609 sq. mi. (28).
Geographic center: In Chilton Co., 12 mi. SW of Clanton.
Number of counties: 67.
Largest cities: Birmingham (326,037); Mobile 129,009); Montgomery (106,525); Gadsden (55,725); Tuscaloosa (46,396).
State forests: 7 (14,368 ac.).
State parks: 27 (38,083 ac.).
State general revenue (1950): $191,156,000.
State general expenditure (1950): $190,119,000.

Alabama is the biggest heavy-industry state in the South. Cotton goods, iron and steel and saw mill products lead Alabama's manufacturing, which is centered in the mills, mines and factories in and around Birmingham, the "Pittsburgh of the South." The state is also high in the growing of nuts, corn, hay and sweet potatoes. Other interests include the making of commercial fertilizer and shipping of raw cotton, iron and steel and hardwood lumber.

Muscle Shoals, on the Tennessee River, provides a great electric power source. At Tuskegee Institute, founded by Booker T. Washington, Dr. George Washington Carver carried out his famed agricultural research. Alabama is the only state that compels all adults from 14 to 50 to undergo examination for syphilis.

The Confederacy was founded at Montgomery in Feb., 1861, and for a time the city was the Confederate capital.

In 1540, Hernando de Soto and his treasure seekers were the first white men to see the state, although Cabeza de Vaca may have preceded him in 1528.

ARIZONA

Capital: Phoenix.
Governor: Howard Pyle (Rep., 1953).
Organized as territory: Feb. 24, 1863.
Entered Union & (rank): Feb. 14, 1912 (48).
Present constitution adopted: 1912.
Motto: *Ditat Deus* (God enriches).
State flower: Flower of saguaro cactus (1931).
State bird: Cactus wren (1931).
State colors: Blue and old gold (1915).
State song: "Arizona's State Anthem" (1919).
Special legal holiday: Admission date, Feb. 14.
Nickname: Grand Canyon State.
Origin of name: From the Indian "Arizonac," meaning "little spring."
1940 population & (rank): 499,261 (43).
1950 population & (rank): 749,587 (37).
1940–50 population change: +50.1%.
Area & (rank): 113,909 sq. mi. (5).
Geographic center: In Yavapai Co., 55 mi. SE of Prescott.
Number of counties: 14.
Largest cities: Phoenix (106,818); Tucson (45,454); Mesa (16,790); Douglas (9,442); Yuma (9,145).
State forests: None.
State parks: 3 (8,250 ac.).
State general revenue (1950): $70,854,000.
State general expenditure (1950): $75,749,000.

Mining, particularly of copper, gold, vanadium and silver, leads the industries of Arizona, and the smelting and refining of copper are the state's principal activities.

Irrigation is vital to its agriculture, and its once arid and useless land now produces cotton, corn, wheat, sorghums, citrus fruit and vegetables.

Phoenix, its largest city, is both a popular health resort and a busy shipper of cotton and vegetables. Douglas loads cattle and smelts copper.

With the Hopi, Navajo (the largest in numbers) and Apache tribes, Arizona has the second largest U. S. Indian population spread over fourteen reservations. It also has some of the country's most famous scenery. In the north is the Grand Canyon; in the east is the Petrified Forest.

Marcos de Niza, a Franciscan friar, entered the state in 1539 in search of the mythical seven cities of Cibola, and was followed a year later by Coronado.

ARKANSAS

Capital: Little Rock.
Governor: Sidney S. McMath (Dem., 1953).
Organized as territory: Mar. 2, 1819.
Entered Union & (rank): June 15, 1836 (25).
Seceded from Union: May 6, 1861.
Re-entered Union: June 22, 1868.
Present constitution adopted: 1874.

Motto: *Regnat populus* (The people rule).
State flower: Apple Blossom (1901).
State tree: Pine (1939).
State bird: Mockingbird.
State song: "The Arkansas Traveler" (1949).
Special state holidays: Lee's Birthday, Jan. 19; World War II Memorial Day, Aug. 14.
Nickname: Wonder State.
Origin of name: From the Quapaw Indians.
1940 population & (rank): 1,949,387 (24).
1950 population & (rank): 1,909,511 (30).
1940–50 population change: —2.0%.
Area & (rank): 53,102 sq. mi. (26).
Geographic center: In Pulaski Co., 12 mi. N of W of Little Rock.
Number of counties: 75.
Largest cities: Little Rock (102,213); Fort Smith (47,942); North Little Rock (44,097); Pine Bluff (37,162); Hot Springs (29,307).
State forests: None.
State parks: 7 (16,759 ac.).
State general revenue (1950): $128,666,000.
State general expenditure (1950): $141,744,000.

About 90 per cent of the nation's bauxite —the source of aluminum—comes from the earth of Arkansas, which also contains North America's only known diamond mine, located in Pike County near Murfreesboro, and presently inactive.

Mostly flat, Arkansas has an equable southern climate and fertile central valleys which grow cotton, rice, wheat, corn, oats, potatoes and fruit. Other industries are oil production, lumbering and the production of whetstones and antimony ore.

Hot Springs entertains fifteen times its population in guests each year. Its forty-seven famous curative mineral springs, the only ones administered by the Federal Government, are in Hot Springs National Park in the Ouachita Mountains. Pine Bluff has the unique distinction of having the largest archery factory in the country.

Hernando de Soto was probably the first white man to see this state in 1541.

CALIFORNIA

Capital: Sacramento.
Governor: Earl Warren (Rep., 1955).
Entered Union & (rank): Sept. 9, 1850 (31).
Present constitution adopted: 1879.
Motto: *Eureka* (I have found it).
State flower: Golden poppy (1903).
State tree: California redwood (1937).
State bird: California valley quail (1931).
State animal: Grizzly bear (unofficial).
State fish: California golden trout (1947).
State insect: California dog-face butterfly (unofficial).
State colors: Blue and gold (unofficial).
State song: "I Love You, California" (unofficial).
Special legal holiday: Admission date, Sept. 9.
Nickname: Golden State.
Origin of name: From a book by the Spaniard Ordoñez de Montalvo.
1940 population & (rank): 6,907,387 (5).
1950 population & (rank): 10,586,223 (2).
1940–50 population change: +53.3%.
Area & (rank): 158,693 sq. mi. (2).
Geographic center: In Madera Co., 35 mi. NE of Madera.
Number of counties: 58.
Largest cities: Los Angeles (1,970,358); San Francisco (775,357); Oakland (384,575); San Diego (334,387); Long Beach (250,767).
State forests: 8 (70,500 ac.).
State parks: 111 (581,629 ac.).
State general revenue (1950): $1,221,049,000.
State general expenditure (1950): $1,367,576,000.

California, celebrated for cinema and sunshine, is one of the nation's economic giants. It collects more money from raising food and catching fish than any other state and it stands high in oil production, lumbering and manufacturing. Out-of-state tourist visitors and the travel and recreation expenditures of the state's residents continue to play an important part in the expansion of trade and employment opportunities. Irrigation, in which California leads the country, makes possible the big crop harvest of cotton, grapes, hay, oranges, barley, lettuce, tomatoes, potatoes and peaches. The state also leads in making wines and brandies.

Nature is spectacular. Death Valley, in the southeast, is 280 feet below sea level, the lowest spot in the nation; Mt. Whitney, a 14,495-foot peak, is the highest point in the U. S.; Lassen Peak is the only active U. S. volcano although its last eruptions were recorded in the years from 1914 to 1917; and the General Sherman Tree in Sequoia National Park is estimated to be about 3,500 years old. San Pedro is the world's largest man-made harbor, and the Bank of America National Trust and Savings Association, operated and owned by the Giannini family, is the largest private bank.

Gold, which was responsible for the state's settlement boom, is still found here, but the state's most important mineral products today are oil, natural gas, cement, sand, gravel, borax, gypsum, salt and gold.

California is a leader in industrial energy and its cities specialize in airplane making, shipbuilding, furniture manufacturing and machinery production.

California's four national parks are great tourist attractions and the San Francisco-Oakland and Golden Gate Bridges are among the world's engineering marvels.

Because written Chinese contains no alphabet, the telephone operators in Chinatown of San Francisco are unique: they have to memorize the names, addresses and telephone numbers of subscribers.

Juan Rodriguez Cabrillo, Spanish explorer, was probably the first white man to see the state in 1542.

COLORADO

Capital: Denver.
Governor: Dan Thornton (Rep., 1953).
Organized as territory: Feb. 28, 1861.
Entered Union & (rank): Aug. 1, 1876 (38).
Present constitution adopted: 1876.
Motto: *Nil sine Numine* (Nothing without Providence).
State flower: Rocky Mountain columbine (1899).
State tree: Colorado blue spruce (1939).
State bird: Lark bunting (1931).
State colors: Blue and white (1911).

State song: "Where the Columbines Grow" (1915).
Special legal holiday: Colorado Day, Aug. 1.
Nickname: Centennial State.
Origin of name: From the Spanish, meaning "red."
1940 population & (rank): 1,123,296 (33).
1950 population & (rank): 1,325,089 (34).
1940–50 population change: +18.0%.
Area & (rank): 104,247 sq. mi. (7).
Geographic center: In Park Co., 30 mi. NW of Pikes Peak.
Number of counties: 63.
Largest cities: Denver (415,786); Pueblo (63,685); Colorado Springs (45,472); Greeley (20,354); Boulder (19,999).
State forests: 1 (70,980 ac.).
State parks: None.
State general revenue (1950): $138,717,000.
State general expenditure (1950): $139,416,000.

Colorado, the most elevated state in the nation, with more than 50 of its peaks over 14,000 feet in height and more than 1,000 going beyond the 10,000-foot mark, began as a miner of gold but has been predominantly agricultural in recent times. Wheat, hay, beans, sugar beets, corn, potatoes, barley and truck vegetables head the crop list. Like California and Arkansas, the state has a highly developed irrigation system to counteract its dry climate and promote farming.

Colorado is the nation's largest producer of uranium and vanadium; also mined are gold, silver, lead, zinc, copper and molybdenum.

Pueblo, the "Pittsburgh of the West," makes iron, steel, brick, tile and foundry products. Colorado Springs is perhaps the most popular tourist center in the Rocky Mountain sector. Mount Evans Highway is the highest auto road in the world. The world's highest suspension bridge stretches 1,053 feet over the Royal Gorge of the Arkansas River. Summit Lake, 12,740 feet high, near the top of Mt. Evans, the highest lake in the U. S., also is in Colorado.

Of archeological interest are the cliffs and canyons of the southwestern part of the state dating back at least 1000 years B.C.

Coronado entered the state in 1540.

CONNECTICUT

Capital: Hartford.
Governor: John Lodge (Rep., 1955).
Entered Union & (rank): Jan. 9, 1788 (5).
Present constitution adopted: 1818.
Motto: *Qui transtulit sustinet* (He who transplanted still sustains).
State flower: Mountain laurel (1907).
State tree: White oak (1947).
State bird: American robin (1943).
State song: None.
Nicknames: Constitution State; Nutmeg State; Land of Steady Habits.
Origin of name: From an Indian word meaning "beside the long tidal river."
1940 population & (rank): 1,709,242 (31).
1950 population & (rank): 2,007,280 (28).
1940–50 population change: +17.4%.
Area & (rank): 5,009 sq. mi. (46).
Geographic center: In Hartford Co., at East Berlin.
Number of counties: 8.
Largest cities: Hartford (177,397); New Haven (164,443); Bridgeport (158,709); Waterbury (104,477); Stamford (74,293).
State forests: 26.
State parks: 56.
State general revenue (1950): $168,935,922.08.
State general expenditure (1950): $208,343,421.61.

Connecticut earned its sobriquet, the "Arsenal of the Nation," by its ability to turn out firearms and ammunition in early days, and from this developed an ability to turn out precision instruments of all classes.

Connecticut's cities produce a variety of products, some of which are: arms, sewing machines, airplanes, typewriters, motors, hardware, cutlery, tools, clocks, locks, pottery, machinery, brass products and hats. Hartford, which has the oldest U. S. newspaper, the *Courant*, established in 1764, is the insurance capital of the nation.

Connecticut devotes its farmland mainly to dairying, fruit growing and poultry raising. It stands high in tobacco growing and no crop in the nation receives as high a price per acre as her shade-grown tobacco.

The state is a popular resort area both for its beaches on Long Island Sound and for its inland lakes and forested hills. The southwest part of the state is a suburban area of New York City.

Connecticut was the first state to have a written constitution, the *Fundamental Orders*, adopted by three original towns of Colonial days in Jan., 1639.

A Dutch trader, Adrian Block, began the exploration of the state in 1614.

DELAWARE

Capital: Dover.
Governor: Elbert N. Carvel (Dem., 1953).
Entered Union & (rank): Dec. 7, 1787 (1).
Present constitution adopted: 1897.
Motto: Liberty and independence.
State flower: Peach blossom.
State bird: Blue hen chicken.
State song: "Our Delaware."
Nicknames: Diamond State; Blue Hen State.
Origin of name: In honor of Sir Thomas West, Lord De La Warr.
1940 population & (rank): 266,505 (46).
1950 population & (rank): 318,085 (46).
1940–50 population change: +19.4%.
Area & (rank): 2,057 sq. mi. (47).
Geographic center: In Kent Co., 11 mi. S of Dover.
Number of counties: 3.
Largest cities: Wilmington (110,356); Newark (6,731); Dover (6,223); New Castle (5,396); Elsmere (5,314).
State forests: 5 (4,200 ac.).
State parks: None.
State general revenue (1950): $34,018,000.
State general expenditure (1950): $42,172,000.

Little Delaware, at the lowest mean elevation of any state, grows a great variety of small fruit and vegetables and is a U. S. pioneer in the industry of food canning. Peaches, strawberries, apples, corn, wheat, hay and truck vegetables are the leading

crops. Fishing in the bay is an important industry. Delaware's chicken farms are one of the great supply sources for the big markets of the East.

Manufactures in Delaware include chemicals, vulcanized fiber, glazed kid and morocco leathers, textiles, paper, metal products, machinery, machine tools and transportation equipment of every major type. In 1844, the *Bangor*, the first iron seagoing propellor-type vessel constructed in the U. S., was launched at Wilmington.

Delaware was the first state to ratify the U. S. Constitution, on Dec. 7, 1787. During the Civil War, although a slave state, Delaware refused to secede from the Union; the southern part of the state, however, supplied many supporters to the Confederacy.

Henry Hudson discovered Delaware Bay in his exploration of 1609. First settlers in the state were Dutchmen, who arrived in 1631, but who were shortly afterwards massacred by the Indians.

DISTRICT OF COLUMBIA

(City of Washington)

Land ceded to Congress: 1788 by Maryland; 1789 by Virginia (retroceded to Virginia Sept. 7, 1846).
Seat of government transferred to D. C.: Dec. 1, 1800.
Created municipal corporation: Feb. 21, 1871.
Present form of government established: June 11, 1878.
Board of Commissioners; John Russell Young (Pres.).
Motto: *Justitia omnibus* (Justice to all).
Official flower: American beauty rose.
Origin of name: In honor of Columbus.
1940 population & (rank as city): 663,091 (11).
1950 population & (rank as city): 802,178 (9).
1940–50 population change: +21.0%.
Area: Land, 61.4 sq. mi.; inland water, 7.8.
Geographic center: Near corner of Fourth and L Sts., NW.
Altitude: Highest, 420 ft.; lowest, sea level.
Location: Between Virginia and Maryland, on Potomac River.
Churches: Protestant, 425; Roman Catholic, 36; Jewish, 12; others, 4.
City-owned parks: 730 (12,500 ac.).
Telephones: 709,847.
Radio sets: 374,204.
Television sets: 175,000.
Radio stations: AM, 13; FM, 7.
Television stations: 4.
Assessed valuation (1951): $1,667,478,897.
City tax rate (1951): $2.15 per $100.
Bonded debt (1951): None.
Revenue (1951): $137,443,225.
Expenditure (1951): $134,638,512.

The District of Columbia—identical with the City of Washington—is the capital of the U. S. and the first carefully planned capital in the world.

D. C. history began in 1790 when Congress directed selection of a new capital site, 10 miles square, along the Potomac. When the site was determined, it included thirty and three-quarters square miles on the Virginia side of the river. In 1846, however, Congress returned that area to Virginia.

President Washington had commissioned Major Pierre L'Enfant, a French engineer who had fought in the Revolution, to plan the new capital and in 1800 the government moved in. In 1814, during the War of 1812, a British force fired the capital and it was from the white paint applied to cover fire damage that the President's home came to be called the White House.

Washington's skyline is dominated by the Capitol and the Washington Monument, towering 555 feet. The Capitol, while not in the city center, is the key to the street address system. The city is laid out in rectangular blocks, created by streets intersecting at right angles. In addition, diagonal arteries fan out from various centers. Pennsylvania Avenue—the radial lines are generally named for the states—is the most famous of them, with the White House at number 1600.

The Capitol is 751 feet long and 350 feet wide. It has 431 rooms. The two wings, constructed of marble, house the Senate and the House; and the central part of the building contains the Rotunda, the Statuary Hall and the old Supreme Court chamber. Visitors may go through the building from 9 A.M. until 4:30 P.M. Congress normally convenes at noon, and the floor of the Senate and House must be cleared by 11:45 A.M. The galleries in the Senate and House chambers are open to visitors during sessions.

Washington has many other famous buildings and monuments—the Library of Congress, Jefferson Memorial, Lincoln Memorial, Grant Memorial, Tomb of the Unknown Soldier (Arlington Cemetery), Treasury Building, the Pentagon, Petersen House (where Lincoln died) and scores of others.

Washington is administered by three commissioners appointed by the President. Two of them must be residents of D. C. and the third must be a U. S. Army engineer appointed by the Chief of Engineers.

FLORIDA

Capital: Tallahassee.
Governor: Fuller Warren (Dem., 1953).
Organized as territory: Mar. 30, 1822.
Entered Union & (rank): Mar. 3, 1845 (27).
Seceded from Union: Jan. 10, 1861.
Re-entered Union: June 25, 1868.
Present constitution adopted: 1887.
Motto: In God we trust.
State flower: Orange blossom (1909).
State bird: Mockingbird (1927).
State song: "Swanee River" (1935).
Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Mardi Gras (Shrove Tuesday) (in some counties); Confederate Memorial Day, Apr. 26; Jefferson Davis' Birthday, June 3.
Nickname: Sunshine State.
Origin of name: From the Spanish, meaning "feast of flowers" (Easter).
1940 population & (rank): 1,897,414 (27).
1950 population & (rank): 2,771,305 (20).
1940–50 population change: +46.1%.
Area & (rank): 58,666 sq. mi. (21).
Geographic center: In Citrus Co., 12 mi. W of N of Brooksville.

Number of counties: 67.
Largest cities: Miami (249,276); Jacksonville (204,517); Tampa (124,681); St. Petersburg (96,738); Orlando (52,367).
State forests: 4 (207,236 ac.).
State parks: 23 (74,936 ac.).
State general revenue (1950): $109,786,082.95.
State general expenditure (1950): $117,716,526.09.

Agriculture is Florida's biggest steady pursuit, but hotel statistics point to its chief fame—resort and tourist business. Along its coastline, the longest of any state, dozens of communities more than double in population during the winter season when northerners flee snow and cold.

Oranges and grapefruit lead Florida's crop list, then come tomatoes, peanuts, corn, celery and potatoes. Truck gardening, commercial fishing and cattle are leading industries. Deep-sea fishing for sport is a leading tourist hobby.

Florida's low elevation is dotted by some 30,000 small lakes and the Everglades swamp in the south. Tampa is one of the largest cigar manufacturers and Jacksonville ships lumber and turpentine. St. Augustine, founded in 1565, is the oldest town of European origin in the U. S. Key West, exclusive resort city, is the southernmost city in the U. S. and is connected to the mainland by a unique causeway.

In 1513, Ponce de León, seeking the mythical "Fountain of Youth," was the first white man to see the state.

GEORGIA

Capital: Atlanta.
Governor: Herman E. Talmadge (Dem., 1955).
Entered Union & (rank): Jan. 2, 1788 (4).
Seceded from Union: Jan. 19, 1861.
Re-entered Union: July 15, 1870.
Present constitution adopted: 1945.
Motto: Wisdom, justice and moderation.
State flower: Cherokee rose (1916).
State tree: Live oak (1937).
State bird: Brown thrasher (1935).
State song: "Georgia" (1922).
Special state holidays: Lee's Birthday, Jan. 19; Confederate Memorial Day, Apr. 26.
Nicknames: Cracker State; Empire State of the South.
Origin of name: In honor of George II of England.
1940 population & (rank): 3,123,723 (14).
1950 population & (rank): 3,444,578 (13).
1940–50 population change: +10.3%.
Area & (rank): 58,876 sq. mi. (20).
Geographic center: In Twiggs Co., 18 mi. SE of Macon.
Number of counties: 159.
Largest cities: Atlanta (331,314); Savannah (119,638); Columbus (79,611); Augusta (71,508; Macon (70,252).
State forests: 2 (2,000 ac.).
State parks: 12 (36,500 ac.).
State general revenue (1950): $201,589,000.
State general expenditure (1950): $204,047,000.

Georgia is typical of the changing South. The value of its factory products has passed the value of its farm products, and industrialization is ever increasing. Atlanta is achieving importance as an automobile maker. Cotton and lumber products, fertilizer, processed food and a great variety of other items are among the factory output of Macon, Augusta and Savannah.

Georgia ranks high in cotton, tobacco, peanuts and pecans. Georgia's peaches are nationally famous. From its vast stands of pine come more than half of all U. S. resin and turpentine. The state is one of the leaders in the value of its clay products. Cattle grazing is extensive. Georgia marble is widely exported.

Warm Springs has the celebrated foundation operated to aid infantile paralysis victims. It was there that President Franklin D. Roosevelt died on April 12, 1945.

Hernando de Soto, a Spaniard, in 1540, looked over the red clay of Georgia, and General James Oglethorpe founded its first British colony on Feb. 12, 1733, as a haven for debtors and seekers of religious freedom.

IDAHO

Capital: Boise.
Governor: Len B. Jordan (Rep., 1955).
Organized as territory: Mar. 3, 1863.
Entered Union & (rank): July 3, 1890 (43).
Present constitution adopted: 1890.
Motto: *Esto perpetua* (It is perpetuated).
State flower: Syringa (1931).
State tree: White pine (1935).
State bird: Mountain bluebird (1931).
State song: "Our Idaho."
Nicknames: Gem State; Gem of the mountains.
Origin of name: From a Shoshoni Indian word meaning "sunup."
1940 population & (rank): 524,873 (42).
1950 population & (rank): 588,637 (43).
1940–50 population change: +12.1%.
Area & (rank): 83,557 sq. mi. (12).
Geographic center: In Custer Co., 24 mi. S of W of Challis.
Number of counties: 44, plus small part of Yellowstone Park.
Largest cities: Boise (34,393); Pocatello (26,131); Idaho Falls (19,218); Twin Falls (17,600); Nampa (16,185).
State forests: 1,160,000 ac.
State parks: 4 (9,000 ac.).
State general revenue (1950): $50,927,000.
State general expenditure (1950): $54,326,000.

Idaho's huge investment in irrigation has advanced its agriculture well ahead of its mining. Idaho potatoes are eaten everywhere. The state grows apples and other fruits and wheat, corn and barley. There is light diversified manufacturing and Pocatello sells its cheese to a world market.

Idaho mines gold, silver, lead, zinc, copper and tungsten, and still has vast undeveloped mineral wealth. In its rugged central mountains is an area that is reachable only by pack horse. The forests of the state, covering at least one-third of the area, account for the fact that lumbering is extensive.

Tourist trade is important. Hunting and fishing are excellent. Sun Valley is a famed resort and attracts countless tourists to its swimming and skiing facilities, both to be enjoyed at the same time in the area.

Lewis and Clark visited Idaho in 1805 but real settlement began with the gold strike of 1860.

ILLINOIS

Capital: Springfield.
Governor: Adlai E. Stevenson (Dem., 1953).
Organized as territory: Feb. 3, 1809.
Entered Union & (rank): Dec. 3, 1818 (21).
Present constitution adopted: 1870.
Motto: State sovereignty, national union.
State flower: Violet (1908).
State tree: Oak (1908).
State bird: Cardinal (1929).
State song: "Illinois" (1925).
Nickname: Prairie State.
Origin of name: From an Indian word and French suffix meaning "tribe of superior men."
1940 population & (rank): 7,897,241 (3).
1950 population & (rank): 8,712,176 (4).
1940–50 population change: +10.3%.
Area & (rank): 56,400 sq. mi. (23).
Geographic center: In Logan Co., 28 mi. NE of Springfield.
Number of counties: 102.
Largest cities: Chicago (3,620,962); Peoria (111,856); Rockford (92,927); East St. Louis (82,295); Springfield (81,628).
State forests: 3 (10,278 ac.).
State parks: 42 (40,000 ac.).
State general revenue (1949): $550,348,000.
State general expenditure (1949): $609,161,000.

Illinois anchors the Midwest like a rich giant, versatile in every big wealth-making industry. It stands high in manufacturing, coal mining, farm cash income, oil production. The sprawling Chicago district (including a slice of Indiana) is a great iron and steel producer, meat packer, grain exchange and rail center. Chicago is also a busy long-flight airport city and Great Lakes port area.

As a farmer, Illinois stands first in soy beans and high in corn, oats, wheat, barley, rye, potatoes and truck vegetables. Hog raising and dairying are important industries. The Illinois sand and gravel business is exceeded only by that of California.

Illinois manufactures almost everything. Railroad cars, clothing, furniture, tractors, liquor, watches and farm implements are some of the items made in its several cities. The biggest government arsenal in the world is located on a Mississippi island off Rock Island. Springfield contains Oak Ridge Cemetery where the body of Lincoln rests.

The year 1858 is marked in Illinois history as the date of the great debating contest between Lincoln and Stephen A. Douglas for the United States senatorship. Lincoln lost the campaign but his anti-slavery speeches won for him the presidential nomination in the subsequent presidential election.

Marquette and Joliet, in 1673, were the first known explorers of this state.

INDIANA

Capital: Indianapolis.
Governor: Henry F. Schricker (Dem., 1953).
Organized as territory: May 7, 1800.
Entered Union & (rank): Dec. 11, 1816 (19).
Present constitution adopted: 1851.
Motto: The Crossroads of America.
State flower: Zinnia (1931).
State tree: Tulip tree (1931).
State bird: Cardinal (1934).
State song: "On the Banks of the Wabash, Far Away" (1913).
Nickname: Hoosier State.
Origin of name: Meaning "land of Indians."
1940 population & (rank): 3,427,796 (12).
1950 population & (rank): 3,934,224 (12).
1940–50 population change: +14.8%.
Area & (rank): 36,291 sq. mi. (37).
Geographic center: In Boone Co., 14 mi. W of N of Indianapolis.
Number of counties: 92.
Largest cities: Indianapolis (427,173); Gary (133,911); Ft. Wayne (133,607); Evansville (128,636); South Bend (115,911).
State forests: 14 (68,512 ac.).
State parks: 14 (39,540 ac.).
State general revenue (1950): $286,299,000.
State general expenditure (1950): $282,989,000.

Indiana's fifty-one-mile Michigan waterfront is one of the great industrial centers of the world, turning out iron and steel and oil products to make this state a leader in manufacturing. Its cities have some of the world's largest industrial plants and their great output is further swelled by the inland factories. The list of products is endless—automobiles, farm implements, aviation and railroad equipment, sewing machines are made from iron ore mined in the Great Lakes region.

As a farmer the state stands high in soy beans, corn, tobacco, onions, wheat, oats, rye and tomatoes. The state produces most of U. S. peppermint and spearmint oil.

Indianapolis is the second largest U. S. city not on a navigable body of water. Wyandotte Cave, the second largest in the U. S., is located in Crawford County of Southern Indiana. West Baden and French Lick are well known for their mineral springs. Indiana was one of the early states to adopt the secret ballot based on the Australian system.

La Salle probably was the first white man to pass through the state in 1671.

IOWA

Capital: Des Moines.
Governor: William S. Beardsley (Rep., 1953).
Organized as territory: June 12, 1838.
Entered Union & (rank): Dec. 28, 1846 (29).
Present constitution adopted: 1857.
Motto: Our liberties we prize and our rights we will maintain.
State flower: Wild rose (1897).
State bird: Eastern goldfinch (1933).
State colors: Red, white and blue (in state flag).
State song: "Song of Iowa."
Nickname: Hawkeye State.
Origin of name: Probably from an Indian word meaning "this is the place."
1940 population & (rank): 2,538,268 (20).
1950 population & (rank): 2,621,073 (22).
1940–50 population change: +3.3%.
Area & (rank): 56,280 sq. mi. (24).

Geographic center: In Story Co., 5 mi. NE of Ames.
Number of counties: 99.
Largest cities: Des Moines (177,965); Sioux City (83,991); Davenport (74,549); Cedar Rapids (72,296); Waterloo (65,198).
State forests: 7 (13,242 ac.).
State parks: 95 (28,220 ac.).
State general revenue (1950): $99,986,527.80.
State general expenditure (1950): $125,263,576.70.
(Includes $50,000,000 for Soldiers Service Compensation Fund.)

Iowa stands in a class by itself as a producer of corn and hogs. The state's productivity often brings it the largest agricultural income in the nation. Ninety per cent of the state is under the plow and the fertility of its soil is unsurpassed anywhere. It also grows oats, soy beans, hemp, hay, popcorn, fruit, nuts and vegetables in great quantities.

Its top industrial activity is naturally centered in meat packing. Des Moines fittingly leads all cities in the publication of farm journals and is also a large insurance center. Muscatine is the largest U. S. maker of pearl buttons. Other Iowa factory products are farm implements, washing machines, fountain pens and railroad and auto equipment.

Iowa has always had a low illiteracy rate and in many years has had the lowest in the nation. The first President to be born west of the Mississippi was Herbert C. Hoover, who came from West Branch.

Marquette and Joliet first explored the state in 1673 and it was in 1778 that Julien Dubuque established the first white settlement on the site of the city that was later named in his honor.

KANSAS

Capital: Topeka.
Governor: Edward F. Arn (Rep., 1953).
Organized as territory: May 30, 1854.
Entered Union & (rank): Jan. 29, 1861 (34).
Present constitution adopted: 1861.
Motto: *Ad astra per aspera* (To the stars through difficulties).
State flower: Sunflower (1903).
State tree: Cottonwood (1937).
State bird: Western meadow lark (1937).
State song: "Home on the Range" (1947).
State march: "The Kansas March" (1935).
Nicknames: Sunflower State; Jayhawker State.
Origin of name: From a Sioux word meaning "people of the south wind."
1940 population & (rank): 1,801,028 (29).
1950 population & (rank): 1,905,299 (31).
1940–50 population change: +5.8%.
Area & (rank): 82,276 sq. mi. (13).
Geographic center: In Barton Co., 15 mi. NE of Great Bend.
Number of counties: 105.
Largest cities: Wichita (168,279); Kansas City (129,553); Topeka (78,791); Hutchinson (33,575); Salina (26,176).
State forests: 1 (4,000 ac.).
State parks: 22 (14,394 ac.).
State general revenue (1950): $171,418,000.
State general expenditure (1950): $160,012,000.

Kansas finds its strength in wheat growing and flour milling. Slaughtering and meat packing are also extensively pursued. In the western part of the state, where Dodge City recalls the old days of cattle rustling, rich prairie land sprawls over a large area and gives an abundance of winter wheat and fine grazing.

Corn, sorghums, oats, barley, soy beans and potatoes are other crops. Besides oil, Kansas mines zinc, coal, salt and lead.

The state is the geographical center of the U. S., and the geodetic center of the North American continent, and as such is the area from which official longitudes and latitudes are measured.

Wichita, a growing industrial center, is a leader in the production of military and civilian aircraft. Kansas City is a transportation, milling, and meat-packing center.

Dry since the Murray Liquor Law of 1881, Kansas repealed prohibition in March, 1949.

Coronado entered the state in 1541 in his quest for the fabled cities of gold. In pre-Civil War days, Kansas was the focal point of the nation as antislavery and proslavery factions fought for supremacy.

KENTUCKY

Capital: Frankfort.
Governor: Lawrence W. Wetherby (Dem., 1956).
Entered Union & (rank): June 1, 1792 (15).
Present constitution adopted: 1891.
Motto: United we stand, divided we fall.
State flower: Goldenrod.
State bird: Kentucky cardinal.
State song: "My Old Kentucky Home."
Special legal holidays: Robert E. Lee Day, Jan. 19; Franklin D. Roosevelt Day, Jan. 30; Confederate Day and Jefferson Davis' Birthday, June 3.
Nickname: Blue Grass State.
Origin of name: From an Iroquoian Indian word probably meaning "meadow land."
1940 population & (rank): 2,845,627 (16).
1950 population & (rank): 2,944,806 (19).
1940–50 population change: +3.5%.
Area & (rank): 40,395 sq. mi. (36).
Geographic center: In Marion Co., 3 mi. W of N of Lebanon.
Number of counties: 120.
Largest cities: Louisville (369,129); Covington (64,452); Lexington (55,534); Owensboro (33,651); Paducah (32,828).
State forests: 3 (30,022 ac.).
State parks: 21 (11,720 ac.).
Total state revenue (1950–51): $196,411,000.
Total state expenditures (1950–51): $193,959,000.

Kentucky prides itself on producing some of the nation's best tobacco, horses and whisky. The state stands high in the production of native asphalt, hemp, coal, corn and oil.

Among the manufactured items produced by its cities are furniture, aluminum ware, brooms, shoes, lumber products, machinery, textiles and iron and steel products. Besides coal and oil, important minerals are natural gas and quarry products.

Louisville, the largest city, famed for the Kentucky Derby at Churchill Downs, has a large municipal university, distills

whisky and is a great cigarette maker. The Blue Grass country is the home of some of the world's finest race horses. Lexington, standing in the center of this country, is a leading tobacconist. Mammoth Cave, with its many miles of underground passages, is a tourist attraction.

Kentucky was credited with a star in the Confederate flag because a secessionist group in the southwest part of the state set up a short-lived government and joined the Confederacy. The legitimate government, however, remained in the Union.

Marquette and Joliet in 1673 saw Kentucky when it was the "Dark and Bloody Ground," fiercely contested by Indian tribes. Daniel Boone explored the country in 1767.

LOUISIANA

Capital: Baton Rouge.
Governor: Earl K. Long (Dem., 1952).
Organized as territory: Mar. 24, 1804.
Entered Union & (rank): Apr. 8, 1812 (18).
Seceded from Union: Jan. 26, 1861.
Re-entered Union: May 29, 1865.
Present constitution adopted: 1921.
Motto: Union, justice and confidence.
State flower: Magnolia (1900).
State bird: Pelican (unofficial).
State song: "Song of Louisiana."
Special legal holidays: Robert E. Lee Day, Jan. 19; Mardi Gras (Shrove Tuesday) (in certain cities and parishes); Confederate Memorial Day, June 3; Huey P. Long Day, Aug. 30; All Saints Day, Nov. 1.
Nicknames: Pelican State; Creole State; Sugar State.
Origin of name: In honor of Louis XIV of France.
1940 population & (rank): 2,363,880 (21).
1950 population & (rank): 2,683,516 (21).
1940–50 population change: +13.5%.
Area & (rank): 48,523 sq. mi. (30).
Geographic center: In Avoyelles Parish, 3 mi. SE of Marksville.
Number of parishes (counties): 64.
Largest cities: New Orleans (570,445); Shreveport (127,206); Baton Rouge (125,629); Lake Charles (41,272); Monroe (38,572).
State forests: 2 (8,800 ac.).
State parks: 9 (7,000 ac.).
State general revenue (1950–51 est.): $369,512,000.
State general expenditure (1950–51 est.): $331,025,000.

Semitropical Louisiana, with much of its land below sea level, is a natural leader in sugar cane, sweet potatoes and rice production. This state, which still calls its counties parishes after the Spanish religious divisions, is also the nation's leading fur trapper with a rich annual bag of mink, muskrat, opossum and raccoon pelts. Other products of importance are sulfur, oil, salt, cotton and lumber. Commercial fishing is extensive.

New Orleans, home of the Mardi Gras, avoids flooding only by an expensive levee and spillway system and the world's largest concentration of drainage pumps. Her industry is making increased use of raw materials from South and Central America. The Vieux Carré, in this Old World city, called by many the "Little Paris" of the New World, has some of the celebrated restaurants of the nation.

No state has a greater variety or abundance of game birds than Louisiana. Its state-owned wildlife sanctuaries are among the largest in the world.

Hernando de Soto, in 1540, is considered the first white man to see the state, but claims are made for Narvaez, who is reputed to have seen the state in 1528.

MAINE

Capital: Augusta.
Governor: Frederick G. Payne (Rep., 1953).
Entered Union & (rank): Mar. 15, 1820 (23).
Present constitution adopted: 1820.
Motto: *Dirigo* (I guide).
State flower: White pine cone and tassel (1895).
State tree: Pine tree.
State bird: Chickadee (1927).
State song: "State of Maine Song" (1937).
Special legal holiday: Patriots' Day, Apr. 19.
Nickname: Pine Tree State.
Origin of name: From the French province of Maine.
1940 population & (rank): 847,226 (35).
1950 population & (rank): 913,774 (35).
1940–50 population change: +7.9%.
Area & (rank): 33,215 sq. mi. (38).
Geographic center: In Piscataquis Co., 18 mi. N of Dover.
Number of counties: 16.
Largest cities: Portland (77,634); Lewiston (40,974); Bangor (31,558); Auburn (23,134); South Portland (21,866).
State forests: 1 (21,000 ac.).
State parks: 6 (133,042 ac.).
State general revenue (1950): $71,438,000.
State general expenditure (1950): $74,417,000.

Maine, the largest potato grower in the nation, is supposed to be the political barometer of the nation because it holds its general election a little more than a month before the other states, a situation that has brought forth the popular expression, "As Maine goes, so goes the nation." But since the state is invariably Republican, the nation sometimes fails to follow it.

Maine has the largest forest area in the East, some 16,750,000 acres in timberland and, as a result, pulp and paper making are its leading industries. In addition to the potato crops, hay, oats, buckwheat and apples are grown. Manufacturing pursuits are textiles, shoes and fruit canning.

Acadia National Park, on Mount Desert Island, approximately 50 miles southeast of Bangor, offers one of the finest examples of mountain and ocean views on the Atlantic.

With 2,465 lakes, hundreds of streams and a bracing summer climate, Maine is famous as a resort state. Fishing is excellent and deer, bear and other game are plentiful. Its city of Eastport is the most easterly city in the U. S., and York was the first chartered city (in 1642) in the nation.

Samuel de Champlain looked over Maine's rugged area in 1604 but the Cabots probably saw it at least a century earlier.

MARYLAND

Capital: Annapolis.
Governor: Theodore R. McKeldin (Rep., 1955).
Entered Union & (rank): Apr. 28, 1788 (7).
Present constitution adopted: 1867.
Motto: *Fatti maschii, parole femine* (Manly deeds, womanly words).
State flower: Black-eyed susan (1918).
State tree: White oak (1941).
State bird: Baltimore oriole (1882).
State colors: Black and gold (1904).
State song: "My Maryland" (1939).
Special state holidays: Maryland Day, Mar. 25; Defenders Day, Sept. 12.
Nicknames: Free State; Old Line State.
Origin of name: In honor of Henrietta Maria (Queen of Charles I of England).
1940 population & (rank): 1,821,244 (28).
1950 population & (rank): 2,343,001 (24).
1940–50 population change: +28.6%.
Area & (rank): 10,577 sq. mi. (41).
Geographic center: In Anne Arundel Co., 3 mi. E of Collington.
Number of counties: 23, plus 1 independent city.
Largest cities: Baltimore (949,708); Cumberland (37,679); Hagerstown (36,260); Frederick (18,142); Salisbury (15,141).
State forests: 11 (120,766 ac.).
State parks: 10 (4,269 ac.).
State general revenue (1950): $202,785,749.71.
State general expenditure (1950): $183,307,109.38.

Maryland, a leader in vegetable canning, is cut almost in two by the upthrust of Chesapeake Bay, and with its many streams in this area, it has probably the most river frontage of any of the states. The state is one of the largest chicken raisers in the East and the Chesapeake is the largest crabbing center in the world. In addition to all kinds of vegetables, the state also grows wheat, hay corn, potatoes and barley. Coal, sand and gravel, cement and stone are the leading mineral products.

The manufacturing products of its cities range from airplanes, steel, clothing, chemicals to meat packing. Annapolis is the site of the U. S. Naval Academy. The State House, built in 1772, is the only one built in the Colonial period which is still in regular use by a state government.

The Charter of Maryland was granted in 1632 to Lord Baltimore, who died before it had passed the Great Seal; and it was issued to his oldest son, Cecil. The first settlers landed at St. Marys in 1634.

MASSACHUSETTS

Capital: Boston.
Governor: Paul A. Dever (Dem., 1953).
Entered Union & (rank): Feb. 6, 1788 (6).
Present constitution adopted: 1780.
Motto: *Ense petit placidam sub libertate quietem* (By the sword we seek peace, but peace only under liberty).
State flower: Mayflower (1918).
State tree: American elm (1941).
State bird: Chickadee (1941).
State colors: Blue and gold (in flag and shield).
State song: None.
Special legal holiday: Patriots' Day, Apr. 19.
Nicknames: Bay State; Old Colony State.
Origin of name: From two Indian words meaning "great mountain place."
1940 population & (rank): 4,316,721 (8).
1950 population & (rank): 4,690,514 (9).
1940–50 population change: +8.7%.
Area & (rank): 8,257 sq. mi. (44).
Geographic center: In Worcester Co., in N part of city of Worcester.
Number of counties: 14.
Largest cities: Boston (801,444); Worcester (203,486); Springfield (162,399); Cambridge (120,740); Fall River (111,963).
State forests: 70 (170,000 ac.).
State parks: 7 (4,792 ac.).
State general revenue (1950): $362,392,000.
State general expenditure (1950): $432,788,000.

From the beginning of American history, Massachusetts has led the nation in the making of textiles and Boston has been the biggest U. S. wool market. Despite the dominance of textiles, the factories of this state are famous for a great variety of products such as shoes, watches, machinery, soap and candy, machine tools, wire products, small arms and electrical machinery. The value of the state's fishing products is the highest in the Northeastern area. Boston and Gloucester have superseded Nantucket and New Bedford, of olden-day whaling fame, as the great fishing ports of contemporary America. The principal crops of this state are tobacco, potatoes, wheat, corn, oats, buckwheat and apples.

The growth of factories brought to this state an influx of foreigners and today Boston has one of the largest Irish populations in the nation. Boston became prominent as the "Cradle of Liberty" in early days and it was here that Paul Revere rode from Christ Church on Copp's Hill and the Battle of Bunker Hill was fought.

Small glacial lakes are scattered throughout the state.

The Pilgrims landed at Plymouth Rock in 1620 as the first large group to settle here but legend has it that Eric the Red and his Norsemen saw the state in the year 1000.

MICHIGAN

Capital: Lansing.
Governor: G. Mennen Williams (Dem., 1953).
Organized as territory: Jan. 11, 1805.
Entered Union & (rank): Jan. 26, 1837 (26).
Present constitution adopted: 1908.
Motto: *Si quaeris peninsulam amoenam circumspice* (If you seek a pleasant peninsula, look around you).
State flower: Apple blossom (1897).
State bird: Robin (unofficial).
State animal: Wolverine (unofficial).
State colors: Blue and gold (1865).
State song: "Michigan, My Michigan" (unofficial).
Special legal holiday: Victory Day, Aug. 14.
Nickname: Wolverine State.
Origin of name: From two Indian words meaning "great lake."
1940 population & (rank): 5,256,106 (7).
1950 population & (rank): 6,371,766 (7).
1940–50 population change: +21.2%.
Area & (rank): 58,216 sq. mi. (22).

Geographic center: In Wexford Co., 5 mi. W of N of Cadillac.
Number of counties: 83.
Largest cities: Detroit (1,849,568); Grand Rapids (176,515); Flint (163,143); Dearborn (94,994); Saginaw (92,918).
State forests: 22 (3,685,244 ac.).
State parks: 57 (150,000 ac.).
State general revenue (1950): $519,362,660.
State general expenditure (1950): $564,834,467.

On a map of Michigan, draw an eighty-five-mile circle around Detroit and it will contain the home plants of the companies that make nine out of ten American automobiles. This vast industry, which sprang up about fifty years ago from the carriage-building business, is not the only activity of this state. Airplanes, furniture (Grand Rapids is the furniture center of the U. S.), diesel engines, hoists, pumps, boilers are among its leading items of production. Most of the nation's refrigerators are made in Michigan. Its farms grow dry beans, grapes and peaches, potatoes and sugar beets.

Michigan is the only state that is split completely in two parts. The northern peninsula is mining and timber country. The southern part is agricultural and manufacturing country. Connecting Lakes Superior and Huron is the busiest canal in the world—the Sault Ste. Marie. Its 6,000 inland lakes and 2,300 miles of Great Lakes shoreline make it a good vacation land.

Michigan has the greatest inland fisheries in the world and markets at least 20 species from carp, trout, perch, pike to lake herring. The artificial skiing on Iron Mountain is probably the highest in the world.

Jacques Cartier, in 1535, was the first white man to see the state.

MINNESOTA

Capital: St. Paul.
Governor: Luther W. Youngdahl (Rep., 1953).
Organized as territory: Mar. 3, 1849.
Entered Union & (rank): May 11, 1858 (32).
Present constitution adopted: 1858.
Motto: *L'Etoile du Nord* (The North Star).
State flower: Moccasin flower (1902).
State tree: Pine (unofficial).
State bird: None.
State song: "Hail Minnesota."
Nicknames: North Star State; Gopher State.
Origin of name: From a Dakota Indian word meaning "sky-tinted water."
1940 population & (rank): 2,792,300 (18).
1950 population & (rank): 2,982,483 (18).
1940–50 population change: +6.8%.
Area & (rank): 80,009 sq. mi. (11).
Geographic center: In Crow Wing Co., 10 mi. SW of Brainerd.
Number of counties: 87.
Largest cities: Minneapolis (521,718); St. Paul (311,349); Duluth (104,511); Rochester (29,-885); St. Cloud (28,410).
State forests: 32 (2,037,065 ac.).
State parks: 56 (84,294.35 ac.).
State general revenue (1950): $262,323,000.
State general expenditure (1950): $335,005,000.

A few square miles of Northern Minnesota, in the Mesabi, Cuyuna and Vermilion Ranges, produce most of the nation's iron ore, and provide the activity for the port of Duluth. Farm and factory are equally important in Minnesota. Its farms produce oats, butter, eggs, milk, corn, wheat, potatoes, etc. Its factory production follows the pattern of the Midwest. Machinery, furniture, foundry products, etc. are made.

St. Paul, whose twin city of Minneapolis faces it on the other side of the Mississippi, is the nation's biggest publisher of calendars and law books. With over 11,000 lakes, the state is famous for its fishing, and deer, bear and fur trapping. Lake Itasca is the source of the Mississippi.

The Arrowhead, covering ten counties in Northeastern Minnesota, and the district centering about the Detroit lakes, are famous resort regions.

In 1655, Radisson and Groseilliers, French traders from Canada, were the first white men to see the state.

MISSISSIPPI

Capital: Jackson.
Governor: Hugh L. White (Dem., 1956).
Organized as territory: Apr. 7, 1798.
Entered Union & (rank): Dec, 10, 1817 (20).
Seceded from Union: Jan. 9, 1861.
Re-entered Union: Feb. 23, 1870.
Present constitution adopted: 1890.
Motto: *Virtute et armis* (By valor and arms).
State flower: Magnolia blossom (1900).
State tree: Magnolia (1938).
State bird: Mockingbird (1944).
State song: "Way Down South in Mississippi" (1948).
Nickname: Magnolia State.
Origin of name: From an Indian word meaning "great water."
1940 population & (rank): 2,183,796 (23).
1950 population & (rank): 2,178,914 (26).
1940–50 population change: —0.2%.
Area & (rank): 47,716 sq. mi. (31).
Geographic center: In Leake Co., 9 mi. N of W of Carthage.
Number of counties: 82.
Largest cities: Jackson (98,271); Meridian (41,893); Biloxi (37,425); Greenville (29,-936); Hattiesburg (29,474).
State forests: 1 (1,760 ac.).
State parks: 10 (10,972 ac.).
State general revenue (1950): $132,573,383.20.
State general expenditure (1950): $134,463,877.57.

Mississippi, the stronghold of the Old South, is one of the least industrial of all the states. More than half of its population makes a living directly from the soil and cotton is still king in this state. The world's largest cotton plantation of 35,000 acres is located at Scott. Other crops are corn, peanuts, oats, pecans and sugar cane. Despite its agricultural nature, Mississippi reflects the southern trend toward industrialization and its factory products are centered about cotton, iron and lumber.

Mississippi's Central Hills have produced a serious soil-erosion problem due to the virtual over-emphasis placed on cotton growing through the years.

Mississippi was the first state to ratify the Eighteenth Amendment and is still one of the two states that bans the sale of

hard liquor. In 1940, it had the second largest Negro population, Georgia having the largest. The state abounds in historical landmarks and is the home of the Vicksburg National Military Park commemorating Grant's military victory on this site.

Hernando de Soto, in 1540, was the first white man to see the state.

MISSOURI

Capital: Jefferson City.
Governor: Forrest Smith (Dem., 1953).
Organized as territory: June 4, 1812.
Entered Union & (rank): Aug. 10, 1821 (24).
Present constitution adopted: 1945.
Motto: *Salus populi suprema lex esto* (The welfare of the people shall be the supreme law).
State flower: Hawthorn (1923).
State bird: Bluebird (1927).
State colors: Red, white and blue (1913).
State song: "Missouri Waltz" (1949).
Special legal holiday: Jefferson Day, Apr. 13.
Nickname: Show-me State.
Origin of name: From an Indian word probably meaning "muddy water."
1940 population & (rank): 3,784,664 (10).
1950 population & (rank): 3,954,653 (11).
1940–50 population change: +4.5%.
Area & (rank): 69,674 sq. mi. (18).
Geographic center: In Miller Co., 20 mi. SW of Jefferson City.
Number of counties: 114, plus 1 independent city.
Largest cities: St. Louis (856,796); Kansas City (456,622); St. Joseph (78,588); Springfield (66,731); University City (39,892).
State forests: 7 (121,000 ac.).
State parks: 23 (54,866 ac.).
State general revenue (1950): $273,231,000.
State general expenditures (1950): $275,135,000.

Missouri, touching both South and North, ranks highest in mining lead, making corncob pipes and breeding mules. Sometimes called the "saddle horse capital of the world" because of its excellent breeds, this state also grows corn, wheat, oats, barley, potatoes, tobacco and cotton on its fertile table land climbing to the Ozark Mountains. This country of rugged, timbered hills and deep valleys, has more than 10,000 swift-flowing streams. It produces automobiles, shoes, drugs, chemicals, beer and street cars.

Eads Bridge, spanning the Mississippi River at St. Louis, probably handles more freight cars than any other bridge in the world. Bagnell Dam, across the Osage River in the Ozarks, completed in 1931, created one of the largest artificial lakes in the world, running for 129 miles and having a shoreline of approximately 1,300 miles.

The homes of two of Missouri's most publicized sons—Mark Twain and Jesse James—are tourist attractions.

Missouri, like Kentucky, had a star in the Confederate flag because a minority of the state legislature adopted an ordinance of secession. The Governor and pro-secession legislature, however, were ousted and the state remained in the Union. The French explorer, La Salle, entered Missouri in 1682.

MONTANA

Capital: Helena.
Governor: John W. Bonner (Dem., 1953).
Organized as territory: May 26, 1864.
Entered Union & (rank): Nov. 8, 1889 (41).
Present constitution adopted: 1889.
Motto: *Oro y plata* (Gold and silver).
State flower: Bitterroot (1895).
State tree: Ponderosa pine (1949).
State bird: Western meadow lark (1931).
State song: "Montana" (1945).
Special legal holiday: VJ Day, Aug. 14.
Nickname: Treasure State.
Origin of name: From the Latin, meaning "mountainous region."
1940 population & (rank): 559,456 (39).
1950 population & (rank): 591,024 (42).
1940–50 population change: +5.6%.
Area & (rank): 147,138 (3).
Geographic center: In Fergus Co., 12 mi. W of Lewistown.
Number of counties: 56, plus small part of Yellowstone National Park.
Largest cities: Great Falls (39,214); Butte (33,251); Billings (31,834); Missoula (22,485); Helena (17,581).
State forests: 7 (235,876 ac.).
State parks: 4 (2,802 ac.).
State general revenue (1950): $57,273,000.
State general expenditure (1950): $60,550,000.

Montana's story is the old Western story—few settlers until a gold strike in 1858 brought an influx. Mining is its present occupation, and lead, zinc, silver, coal and oil are taken from its earth.

Butte, sitting on the "richest hill in the world," is the center of the area that once supplied half of the U. S. copper (its most important mineral). Livestock, wool, lumber and dude ranching round out its interests. Agriculture is dependent on irrigation.

The state as a whole still possesses the frank character of the old days, reflected in the legend that the only reason Helena was selected as the name to replace Last Chance Gulch was because of the suggestion of profanity in the front part of that name. Glacier National Park is a popular tourist area with its rugged scenery, hunting areas and dude ranches. While little development has as yet been made, Montana offers fine potentialities for winter sports. Snow conditions are good in the winter in the National Forest Service areas.

French traders, probably sons of Verendrye, first explored the state in 1742.

NEBRASKA

Capital: Lincoln.
Governor: Val Peterson (Rep., 1953).
Organized as territory: May 30, 1854.
Entered Union & (rank): Mar. 1, 1867 (37).
Present constitution adopted: 1875.
Motto: Equality before the law.
State flower: Goldenrod (1895).
State tree: American elm (1937).
State bird: Western meadow lark (1929).
State song: "My Nebraska" (unofficial).
Special legal holiday: Arbor Day, Apr. 22.
Nickname: Cornhusker State.
Origin of name: From an Oto Indian word meaning "flat water."

1940 population & (rank): 1,315,834 (32).
1950 population & (rank): 1,325,510 (33).
1940–50 population change: +0.7%.
Area & (rank): 77,237 sq. mi. (14).
Geographic center: In Custer Co., 10 mi. NW of Broken Bow.
Number of counties: 93.
Largest cities: Omaha (251,117); Lincoln (98,884); Grand Island (22,682); Hastings (20,211); North Platte (15,433).
State forests: None.
State parks: 7 (1,036 ac.).
State general revenue (1950): $87,098,000.
State general expenditure (1950): $84,216,000.

Nebraska lives by its expansive sea of grain, reflected in its bumper crops of rye, corn and wheat. There are more varieties of grass growing in this state, valuable for forage, than in any other state in the nation. Its sizable cattle and hog industry help to make Omaha a great stockyard and meat-packing center. Flour, freight cars, farm machinery, precision instruments, brick and tile are products of Nebraska.

One of the world's largest creameries is at Lincoln. Oil was discovered in 1939 and natural gas was discovered in 1949. In 1937, after a constitutional amendment three years earlier, Nebraska became the only state in the union to have a unicameral legislature, to which members are elected without party designation.

NEVADA

Capital: Carson City.
Governor: Charles Russell (Rep., 1955).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Oct. 31, 1864 (36).
Present constitution adopted: 1864.
Motto: All for our country.
State flower: Sagebrush (1917).
State bird: Mountain bluebird (unofficial).
State colors: Blue and silver (unofficial).
State song: "Home Means Nevada" (1933).
Special state holiday: Nevada Day, Oct. 31.
Nicknames: Sagebrush State; Silver State.
Origin of name: Spanish: meaning "snow-clad."
1940 population & (rank): 110,247 (48).
1950 population & (rank): 160,083 (48).
1940–50 population change: +45.2%.
Area & rank: 110,540 (6).
Geographic center: In Lander Co., 23 mi. SE of Austin.
Number of counties: 17.
Largest cities: Reno (32,497); Las Vegas (24,624); Sparks (8,203); Elko (5,393); North Las Vegas (3,875).
State forests: None.
State parks: 4 (1,600 ac.).
State general revenue (1950): $16,373,581.
State general expenditure (1950): $16,842,416.

Nevada, the smallest state in population, had in 1950 about one and one-half persons per square mile. It was made famous by the discovery of the fabulous Comstock Lode in 1859, and has since lived mainly on its mines which give up large quantities of gold, silver, copper, lead, zinc, quicksilver and tungsten. In 1931, the state created a new industry by writing an easy divorce law and Reno has since become the "divorce capital of the nation." Gambling was legalized and the gaming tables now pay a two-per cent tax to add to the state's income.

Near Las Vegas, on the Colorado River, stands the Hoover Dam which has twice changed its name (Hoover to Boulder to Hoover), the highest in the world at 726 feet. The state's agricultural crop consists mainly of wheat, barley and potatoes. Carson City is the smallest state capital in population in the U. S. Nevada was the first in the world to use gas for capital punishment.

Francisco Garcés, a Franciscan friar, saw Nevada's rugged scenery in 1775.

NEW HAMPSHIRE

Capital: Concord.
Governor: Sherman Adams (Rep., 1953).
Entered Union & (rank): June 21, 1788 (9).
Present constitution adopted: 1784.
Motto: Live free or die.
State flower: Purple lilac (1919).
State tree: White birch (1947).
State bird: None.
State song: "Old New Hampshire" (1949).
Special legal holiday: Fast Day, 4th Monday in April.
Nickname: Granite State.
Origin of name: From the English county of Hampshire.
1940 population & (rank): 491,524 (45).
1950 population & (rank): 533,242 (44).
1940–50 population change: +8.5%.
Area & (rank): 9,304 sq. mi. (43).
Geographic center: In Belknap Co., 3 mi. E of Ashland.
Number of counties: 10.
Largest cities: Manchester (82,732); Nashua (34,669); Concord (27,988); Portsmouth (18,830); Berlin (16,615).
State forests: 143 (55,769 ac.).
State parks: 33 (30,976 ac.).
State general revenue (1950): $38,834,000.
State general expenditure (1950): 44,758,000.

New Hampshire is the only state that ever played host at the formal conclusion of a foreign war when, in 1905, Portsmouth was the scene of the treaty ending the Russo-Japanese War. The sandy and stony loam of this state needs liberal fertilization for the growing of its principal crops—fruit, truck vegetables, corn, oats, hay and potatoes. Its chief manufacturing is the production of textiles, leather goods, pulp and paper products.

New Hampshire was the first state to declare its independence from Great Britain and to adopt a constitution. Mt. Washington has recorded some of the world's strongest wind velocities, the last recording of record proportions being registered at 231 miles per hour. The state also has the largest legislative body; it varies from 350 to 400.

With 1,300 lakes and good climate for both winter sports and summer vacations, the state is highly popular as a resort area.

Martin Pring, an Englishman, was probably the first white man to see the state in 1603.

NEW JERSEY

Capital: Trenton.
Governor: Alfred E. Driscoll (Rep., 1954)
Entered Union & (rank): Dec. 18, 1787 (3).
Present constitution adopted: 1947.

Motto: Liberty and prosperity.
State flower: Violet (1913).
State bird: Eastern goldfinch (1935).
State colors: Blue and gold.
State song: None.
Nickname: Garden State.
Origin of name: From the Channel island of Jersey.
1940 population & (rank): 4,160,165 (9).
1950 population & (rank): 4,835,329 (8).
1940–50 population change: +16.2%.
Area & (rank): 7,836 sq. mi. (45).
Geographic center: In Mercer Co., 5 mi. SE of the State capitol.
Number of counties: 21.
Largest cities: Newark (438,776); Jersey City (299,017); Paterson (139,336); Trenton (128,009); Camden (124,555).
State forests: 9 (58,437 ac.).
State parks: 21 (18,188 ac.).
State general revenue (1950): $243,998,000.
State general expenditure (1950): $260,854,000.

New Jersey is one of the most intensely industrial areas of the nation in spite of its small size; its northern part is sometimes called "America's Ruhr." This manufacturing dynamo, whose greatest single industry is the making of electrical machinery, also makes dyed textiles, chemicals, paints, elevators, silk products, pottery, pen points and warships. At its southern point, the activity is focused in an extensive truck gardening business. New Jersey's seaports are among the busiest in the nation.

The oldest U. S. highway was built in Warren County in 1650; the first lighthouse in America was built in 1764 at Sandy Hook. Outside of Morristown is the Seeing Eye Training School, where dogs are trained to lead the blind.

Because of its extended seaboard, New Jersey is a popular resort state, especially during the summer months. Its 120 miles from Sandy Hook to Cape May have at least 40 beaches.

The first white man to see New Jersey was Verrazano, a Florentine sailor, in 1524.

NEW MEXICO

Capital: Santa Fe.
Governor: Edwin L. Mechem (Rep., 1953).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 6, 1912 (47).
Present constitution adopted: 1912.
Motto: *Crescit eundo* (We grow as we go).
State flower: Yucca (1927).
State tree: Piñon (1949).
State bird: Road runner (1949).
State colors: Flaming red and golden orange (1915).
State song: "O, Fair New Mexico" (1916).
Special state holiday: Arbor Day (second Friday in March).
Nicknames: Land of Enchantment; Sunshine State.
Origin of name: From the country of Mexico.
1940 population & (rank): 531,818 (42).
1950 population & (rank): 681,187 (39).
1940–50 population change: +28.1%.
Area & (rank): 121,666 sq. mi. (4).
Geographic center: In Torrance Co., 12 mi. W of S of Willard.
Number of counties: 32.
Largest cities: Albuquerque (96,815); Santa Fe (27,998); Roswell (25,738); Carlsbad (17,975); Clovis (17,318).
State forests: None.
State parks: 6 (78,000 ac.).
State general revenue (1950): $76,014,000.
State general expenditure (1950): $79,519,000.

Bilingual New Mexico is the only state where both English and Spanish are accepted as official languages. The two cultures of this state give it a picturesqueness that attracts many tourists. Mining and the raising of cattle and crops provide the state's chief interests. Irrigation is vital.

The state contains the largest Indian reservation in the U. S. with over 16,000,000 acres, habitated by the Navajo tribe. The Apaches and Utes live in three other reservations in this state (the Jicarilla Apache, at Horse Lake; the Mescalero Apache, northeast of Alamogordo; the Navajo, in San Juan and McKinley counties; and the Southern Ute, in the northern part of San Juan County). Carlsbad Caverns, the largest in the world, attract many visitors annually. The highest golf course in the world, over 9,000 feet above sea level, is near Alamogordo.

The state's dry and healthful climate makes it a great recuperative mecca for tuberculars. Santa Fe, the oldest seat of government in the U. S., founded by the Spaniards in 1609–10, is a sight-seers' paradise, as well as a health resort.

Cabeza de Vaca traversed the state in 1528.

NEW YORK

Capital: Albany.
Governor: Thomas E. Dewey (Rep., 1955).
Entered Union & (rank): July 26, 1788 (11)
Present constitution adopted: 1777 (last revised 1938).
Motto: *Excelsior* (Ever Upward).
State flower: Rose (unofficial).
State tree: Sugar maple (unofficial).
State bird: Bluebird (unofficial).
State song: None.
Nickname: Empire State.
Origin of name: In honor of the English Duke of York.
1940 population & (rank): 13,479,142 (1).
1950 population & (rank): 14,830,192 (1).
1940–50 population change: +10.0%.
Area & (rank): 49,576 sq. mi. (29).
Geographic center: In Madison Co., 6 mi. E of S of Oneida.
Number of counties: 62.
Largest cities: New York (7,891,957); Buffalo (580,132); Rochester (332,488); Syracuse (220,583); Yonkers (152,798).
State forests: 370 (543,212).
State parks: 79 (2,600,850).
State general revenue (1951): $881,746,791.91.
State general expenditure (1951): $891,282,572.18.

New York, with the great metropolis of New York City, is the spectacular nerve center of the nation. It leads in population, manufacturing, foreign trade, commercial and financial transactions, book and magazine publishing, theatrical production and a host of other fields.

New York City is not only a national but an international leader. It is the busiest

seaport in the world; its airport at La Guardia Field was the world's largest commercial airport until supplemented by the Idlewild Field. First in manufacturing since 1824, the city today has a gigantic clothing and fur industry and also makes chemicals, paints, drugs, machinery, paper, wood and textile products and houses the tallest buildings in the world. Nearly all the rest of the state's manufacturing is done along the Hudson River north to Albany and through the Mohawk Valley and central New York to Buffalo. It includes planes, auto bodies and parts, washing machines, typewriters, photographic and optical equipment, shirts and flour. Dairying, truck gardening, and the raising of potatoes, onions and cabbage keep the New York farmer prosperous. Winemaking is a major industry in the state.

New York's extremely rapid commercial growth may be partly attributed to Governor De Witt Clinton who pushed through the construction of the Erie Canal (Buffalo to Albany) which was formally opened in 1825. The canal, the first of the great manmade waterways of the U. S., opened a new vista of commercial expansion.

The state leads the nation and the world as a tourist attraction. The convention and tourist business is the state's fifth greatest source of income and the famous resort areas upstate in and around Lakes Champlain and George abound in winter sports.

For a short time, New York City was the U. S. Capital and George Washington was inaugurated there as the first President on April 30, 1789. It is a key state in any national election, and so significant in the life of the country that any Governor is likely to become a presidential possibility.

Henry Hudson discovered New York in 1609 in his trip up the river later named in his honor. On the basis of his explorations, the Dutch bought the island of Manhattan for $24 from the Indians.

NORTH CAROLINA

Capital: Raleigh.
Governor: W. Kerr Scott (Dem., 1953).
Entered Union & (rank): Nov. 21, 1789 (12).
Seceded from Union: May 20, 1861.
Re-entered Union: July 20, 1868.
Present constitution adopted: 1876.
Motto: *Esse quam videri* (To be rather than to seem).
State flower: Dogwood (1941).
State bird: Cardinal (1943).
State song: "The Old North State" (1927).
State Colors: Red and blue (1945).
Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Easter Monday; Halifax Resolutions Anniversary, Apr. 12; Confederate Memorial Day, May 10; Mecklenburg Independence Day, May 20.
Nicknames: Tar Heel State; Old North State.
Origin of name: In honor of Charles I of England.
1940 population & (rank): 3,571,623 (11).
1950 population & (rank): 4,061,929 (10).
1940–50 population change: +13.7%.
Area & (rank): 52,712 sq. mi. (27).
Geographic center: In Chatham Co., 10 mi. NW of Sanford.
Number of counties: 100.
Largest cities: Charlotte (134,042); Winston-Salem (87,811); Greensboro (74,389); Durham (71,311); Raleigh (65,679).
State forests: 1.
State parks: 14 (18,768 ac.).
State revenue (all funds) (1950–51): $261,450,922.
State expenditure (all funds) (1950–51): $243,162,506.

North Carolina is the nation's largest tobacconist and textile producer. It holds first place in the Southeast in population and in the value of its industrial and agricultural production. This production is highly diversified, with furniture, chemicals and paper constituting enormous industries. Tobacco, corn, cotton, hay, peanuts and truck and vegetable crops are of major importance. The livestock industry is growing rapidly.

The state leads the South in social and economic reforms. Its educational pay scale is the same for white and Negro teachers. Its school-bus system is the world's largest.

There are 79 state and national public parks, forests and other recreational areas, including the Great Smoky Mountains National Park and the Blue Ridge Parkway. Mt. Mitchell, on the Parkway near Asheville, is the highest mountain in the Eastern U. S. (6,684 ft. above sea level).

The largest military reservation in the U. S. (Fort Bragg) and the largest Marine amphibious training base (Camp LeJeune) are in North Carolina.

The first English colony in America was established on Roanoke Island in 1585. Virginia Dare, born there in 1587, was the first child of English parentage born in America.

NORTH DAKOTA

Capital: Bismarck.
Governor: C. Norman Brunsdale (Rep., 1953).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Nov. 2, 1889 (39).
Present constitution adopted: 1889.
Motto: Liberty and union, now and forever: one and inseparable.
State flower: Wild prairie rose (1907).
State tree: American elm (1947).
State bird: Western meadow lark (1947).
State song: "North Dakota Hymn" (1947).
Nickname: Flickertail State.
Origin of name: From the Dakota tribe, meaning "united in friendly compact."
1940 population & (rank): 641,935 (39).
1950 population & (rank): 619,636 (41).
1940–50 population change: —3.5%.
Area & (rank): 70,665 sq. mi. (16).
Geographic center: In Sheridan Co., 5 mi. SW of McClusky.
Number of counties: 53.
Largest cities: Fargo (38,256); Grand Forks (26,836); Minot (22,032); Bismarck (18,640); Jamestown (10,697).
State forests: None.
State parks: 3 (2,025 ac.).
State general revenue (1950): $58,595,000.
State general expenditure (1950): $88,021,000.

North Dakota, politically progressive, operates the only state-owned bank, flour

mill and grain elevator in the nation. The state owes its main activity to agriculture with over 87 per cent of its acreage devoted to the growth of barley, wheat, rye, oats. Most of its manufacturing consists of dairy products.

The finest farming land is in the Red River Valley, celebrated in song. Cattle raising is centered in the Missouri Valley.

"Number One Northern Hard," a wheat first grown in this state, still brings premium prices for its excellence of quality. Sacajawea, a Shoshoni Indian woman, is probably North Dakota's most notable person. In 1805 she joined Lewis and Clark and made herself so useful as guide and diplomat that the expedition might have been lost without her. Geologists believe that this state holds two-thirds of our lignite.

The geographic center of the North American continent is located in Pierce County, latitude 48°10′N, longitude 100°10′W.

A French trader in furs, Verendrye, entered the state from Canada in 1738.

OHIO

Capital: Columbus.
Governor: Frank J. Lausche (Dem., 1953).
Entered Union & (rank): Feb. 19 or Mar. 1, 1803 (date disputed) (17).
Present constitution adopted: 1851.
Motto: *Imperium in imperio* (An empire within an empire) (unofficial).
State flower: Scarlet carnation (1904).
State bird: Cardinal (1933).
State song: None.
Nickname: Buckeye State.
Origin of name: From an Iroquoian word meaning "great river."
1940 population & (rank): 6,907,612 (4).
1950 population & (rank): 7,946,627 (5).
1940–50 population change: +15.0%.
Area & (rank): 41,222 sq. mi. (34).
Geographic center: In Delaware Co., 25 mi. N of Columbus.
Number of counties: 88.
Largest cities: Cleveland (914,808); Cincinnati (503,998); Columbus (375,901); Toledo (303,616); Akron (274,605).
State forests: 21 (128,956 ac.).
State parks: 21 (27,467 ac.).
State general revenue (1950): $662,862,301.
State general expenditure (1950): $695,534,112.

With vast coal and oil fields on the one hand, with Great Lakes iron ore close by on the other, Ohio automatically developed into one of the nation's greatest industrial states. The vast and varied factory output of its cities runs from wire, nails, nuts, bolts, paper, radios, cash registers, golf clubs, refrigerators to motors of all kinds and sizes. Cleveland is one of the world's largest handlers of iron ore. Toledo is the nation's largest shipper of coal. Akron makes most of the auto tires used in the U. S.

Ohio's thousands of factories almost overshadow its importance in two other basic industries—mining and agriculture. Its fertile soil produces soy beans, corn, wheat, grapes and tobacco. Dairying and greenhouse products are important. Mining is centered in coal, oil, sand, gravel and clay.

Ohio is called the "Mother of Presidents," because it has sent to the White House eight men, six of whom were elected from that state and two of whom were born in Ohio but elected from other states.

In 1749, Céleron, a French officer, reached the Ohio River from Canada and claimed the area for the French, disregarding the grants of the British Kings.

OKLAHOMA

Capital: Oklahoma City.
Governor: Johnston Murray (Dem., 1955).
Organized as territory: May 2, 1890.
Entered Union & (rank): Nov. 16, 1907 (46).
Present constitution adopted: 1907.
Motto: *Labor omnia vincit* (Labor conquers all things).
State flower: Mistletoe (1893).
State tree: Redbud (1937).
State bird: Scissor-tailed Flycatcher.
State colors: Green and white (1915).
State song: "Oklahoma (A Toast)" (1935).
Special state holidays: Opening of Oklahoma Terr., Apr. 22; Will Rogers' Birth, Nov. 4.
Nickname: Sooner State.
Origin of name: From two Choctaw Indian words meaning "red people."
1940 population & (rank): 2,336,434 (22).
1950 population & (rank): 2,233,351 (25).
1940–50 population change: —4.4%.
Area & (rank): 69,919 sq. mi. (17).
Geographic center: In Oklahoma Co., 8 mi. N of Oklahoma City.
Number of counties: 77.
Largest cities: Oklahoma City (243,504); Tulsa (182,740); Muskogee (37,289); Enid (36,017); Lawton (34,757).
State forests: None.
State parks: 7 (29,186 ac.).
State general revenue (1950): $246,752,772.
State general expenditure (1950): $235,953,358.

Oil has made Oklahoma a rich state and Tulsa one of the world's wealthiest cities per capita. The smelting of zinc, oil refining, meat packing and flour milling are its chief factory industries. Wheat, corn, oats, cotton, sorghums and potatoes are its agricultural crops of chief importance.

In 1834, Oklahoma was set aside as Indian Territory and remained so until noon, April 22, 1889, when it was opened up to homesteaders. On that one day, 50,000 people swarmed in and the term "sooners" was born to apply to those who had sneaked into the state sooner than the noon deadline. Today, Oklahoma has the biggest U. S. Indian population, 63,125 according to the 1940 census, many of whom are rich because of the oil discovered on their land. The state is one of the two in the nation which prohibits the sale of hard liquor.

Coronado entered Oklahoma in 1541 while searching for the mythical city of Quivira.

OREGON

Capital: Salem.
Governor: Douglas McKay (Rep., 1955).
Organized as territory: Aug. 13, 1848.
Entered Union & (rank): Feb. 14, 1859 (33).
Present constitution adopted: 1859.
Motto: The Union (unofficial).

State flower: Oregon grape (1899).
State tree: Douglas fir (1939).
State bird: Western meadow lark (1927).
State song: "Oregon, My Oregon" (1927).
Nickname: Beaver State.
Origin of name: Probably from the Shoshoni Indian words meaning "place of plenty."
1940 population & (rank): 1,089,684 (34).
1950 population & (rank): 1,521,341 (32).
1940–50 population change: +39.6%.
Area & (rank): 96,981 sq. mi. (9).
Geographic center: In Crook Co., 25 mi. E of S of Prineville.
Number of counties: 36.
Largest cities: Portland (373,628); Salem (43,140); Eugene (35,879); Medford (17,305); Corvallis (16,207).
State forests: 5 (687,218 ac.).
State parks: 147 (66,000 ac.).
State general revenue (1950): $164,248,000.
State general expenditure (1950): $169,606,000.

Oregon, with the greatest U. S. reserve of standing timber, lives on its lumber and agriculture. Its salmon fishing industry, centered at Astoria at the mouth of the Columbia River, is one of the world's largest. The state leads in growing hops and also raises nuts, wheat, hay, oats and potatoes. Mercury, chromite and antimony are mined.

Oregon's coast is lush and green with heavy rainfall. Factories produce lumber and food products, flour and machinery.

Bonneville Dam lies in Oregon and helps make the state a great source of electric power. Oregon was the first of the far-Western states to be settled without the help of a major gold rush.

The first white men to see Oregon were Spaniards who sailed up the coast from Mexico in 1543. However, it is believed that the first white men to enter Oregon were from the ship of Capt. Robert Gray in 1788.

PENNSYLVANIA

Capital: Harrisburg.
Governor: John S. Fine (Rep., 1955).
Entered Union & (rank): Dec. 12, 1787 (2).
Present constitution adopted: 1874.
Motto: Virtue, liberty and independence.
State flower: Mountain laurel (1933).
State tree: Hemlock (1931).
State bird: Ruffed grouse (1931).
State colors: Blue and gold.
State song: None.
Nickname: Keystone State.
Origin of name: In honor of William Penn.
1940 population & (rank): 9,900,180 (2).
1950 population & (rank): 10,498,012 (3).
1940–50 population change: +6.0%.
Area & (rank): 45,333 sq. mi. (32).
Geographic center: In Center Co., 2 1/2 mi. SW of Bellefonte.
Number of counties: 67.
Largest cities: Philadelphia (2,071,605); Pittsburgh (676,806); Erie (130,803); Scranton (125,536); Reading (109,320).
State forests: 23 (1,767,531 ac.).
State parks: 109 (92,520 ac.).
State general revenue (1950): $1,098,501,000 (includes Bonus bonds).
State general expenditure (1950): $962,283,000 (includes Veterans Bonus payments).

From the steel mills of Pittsburgh through the mid-state coal mines and oil wells to the shipyards and factories of Philadelphia, Pennsylvania bristles with heavy industry. Iron and steel are the state's trademarks. Today about half of U. S. iron and steel is made in the Pittsburgh area. Electrical machinery, textiles, boilers, engines, knit goods, locomotives, wire, trucks, buses, silk products, blast furnaces and other heavy products are made in the countless factories of this state. Philadelphia is the second busiest port in the U. S. and was the third largest city in population in 1950. Pennsylvania contains virtually all the U. S. anthracite (hard coal) deposits. As a farmer the state stands high in buckwheat, tobacco, apples, potatoes, corn, wheat, barley, hay and peaches.

Pennsylvania is rich in historical lore. Philadelphia was the seat of the federal government almost continuously from 1776 until 1800, and there the Declaration of Independence was signed and the Constitution drawn up. Valley Forge, of the Revolution, and Gettysburg, the turning-point of the Civil War, are both in Pennsylvania. The Liberty Bell stands in Independence Square in Philadelphia.

Henry Hudson sailed into Delaware Bay in 1609, following his trip up the Hudson River, and gave the Dutch first claim to the state. In 1681, William Penn, the Quaker, founded its first colony.

RHODE ISLAND

Capital: Providence.
Governor: Dennis J. Roberts (Dem., 1953).
Entered Union & (rank): May 29, 1790 (13).
Present constitution adopted: 1843.
Motto: Hope.
State flower: Violet (unofficial).
State tree: Maple (unofficial).
State bird: Bobwhite (unofficial).
State colors: Blue, white and gold (in state flag).
Song: "Rhode Island" (1946).
Special legal holiday: Victory Day, Aug. 14.
Nickname: Little Rhody.
Origin of name: From the Greek island of Rhodes.
1940 population & (rank): 731,346 (36).
1950 population & (rank): 791,896 (36).
1940–50 population change: +11.0%.
Area & (rank): 1,214 sq. mi. (48).
Geographic center: In Kent Co., 1 mi. W of S of Crompton.
Number of counties: 5.
Largest cities: Providence (248,674); Pawtucket (81,436); Cranston (55,060); Woonsocket (50,211); Warwick (43,028).
State forests: 3 (3,407 ac.).
State parks: 38 (6,762 ac.).
State general revenue (1950): $48,399,883.31.
State general expenditure (1950): $49,317,175.72.

Little Rhode Island (it would fit into Texas 220 times), with the greatest density of population barring the District of Columbia, boasts the greatest per capita industrial output of all the states, and the bulk of its products comes from the textile mills of Pawtucket, Providence and Woonsocket.

Providence is also one of the largest U. S. jewelry centers

Though more than nine-tenths of the people live in the cities, the southern part of the state is interested in dairying and truck farming in spite of the sterility of the boulder clay soil. Potatoes, corn, apples, oats and hay lead the crop list.

Newport is the site of the Naval War College and was long a show place for the luxurious summer homes built by some of New York's wealthiest people. The U. S. Naval Air Station is at Quonset in the town of North Kingstown.

Roger Williams founded Providence, and subsequently Rhode Island, in 1636 after he had been banished from Massachusetts for nonconformance to religious doctrine. William Blackstone, a fugitive from Massachusetts, is reputed to have settled in what is now Cumberland, before this date.

SOUTH CAROLINA

Capital: Columbia.
Governor: James F. Byrnes (Dem., 1955).
Entered Union & (rank): May 23, 1788 (8).
Seceded from Union: Dec. 20, 1860.
Re-entered Union: July 18, 1868.
Present constitution adopted: 1895.
Mottoes: *Animus opibusque parati* (Prepared in minds and resources) and *Dum spiro spero* (While I breathe, I hope).
State flower: Carolina yellow jessamine (1924).
State tree: Palmetto tree (1939).
State bird: Carolina wren (1948).
State song: "Carolina" (1911).
Special legal holidays: Lee's Birthday, Jan. 19; Confederate Memorial Day, May 10; Jefferson Davis' Birthday, June 3; Thursday of State Fair Week (in October, where fair is held).
Nickname: Palmetto State.
Origin of name: Same as for North Carolina.
1940 population & (rank): 1,899,804 (26).
1950 population & (rank): 2,117,027 (27).
1940–50 population change: +11.4%.
Area & (rank): 31,055 sq. mi. (39).
Geographic center: In Richland Co., 13 mi. SE of Columbia.
Number of counties: 46.
Largest cities: Columbia (86,914); Charleston (70,174); Greenville (58,161); Spartanburg (36,795); Rock Hill (24,502).
State forests: 4 (123,000 ac.).
State parks: 20 (45,000 ac.).
State total revenue (1950–51): $187,200,408.
State general expenditure (1950–51): $179,400,640.

Once primarily agricultural, South Carolina has built so many big cotton textile mills that today the state's factories double the output of its farms in cash value. Agriculture has not, however, been completely replaced and today its chief crops are cotton, tobacco, peaches, corn, hay, oats, sweet potatoes and peanuts which are enhanced by the recent development of modern soil-conservation methods. Charleston, the largest city and busiest seaport, makes asbestos, wood, pulp and steel products.

Civil War hostilities were started in this state at Charleston, when on April 12, 1861, South Carolina men bombarded and captured Fort Sumter. In Charleston harbor the first submarine was used in warfare.

Vasquez de Ayllon, who came from Santo Domingo with about 500 settlers in 1526, made the first attempt to colonize this state but the expedition was later wiped out by Indians. In succeeding years, Spanish attempts were successful.

SOUTH DAKOTA

Capital: Pierre.
Governor: Sigurd Anderson (Rep., 1953).
Organized as territory: Mar. 2, 1861.
Entered Union & (rank): Nov. 2, 1889 (40).
Present constitution adopted: 1889.
Motto: I lead.
State flower: American pasqueflower (1903).
State tree: Black Hills spruce (1947).
State bird: Ring-necked pheasant (1943).
State animal: Coyote (1949).
State colors: Blue and gold (in state flag).
State song: "Hail! South Dakota" (1943).
Nicknames: Sunshine State; Coyote State.
Origin of name: Same as for North Dakota.
1940 population & (rank): 642,961 (38).
1950 population & (rank): 652,740 (40).
1940–50 population change: +1.5%.
Area & (rank): 77,047 sq. mi. (15).
Geographic center: In Hughes Co., 8 mi. NE of Pierre.
Number of counties: 68.
Largest cities: Sioux Falls (52,696); Rapid City (25,310); Aberdeen (21,051); Huron (12,788); Watertown (12,699).
State forests: 4 (84,000 ac.).
State parks: 38 (4,000 ac.).
State general revenue (1950): $57,423,000.
State general expenditure (1950): $77,531,000.

Seventy-five per cent of the population of South Dakota is actively interested in agriculture. Its leading crops are rye, barley, oats, corn, wheat. Cattle raising and dairying are its stronger industries. The richest U. S. gold mine, the Homestake, is at Lead.

The Black Hills, a great tourist attraction, are the highest mountains east of the Rockies. Mt. Rushmore, in this group, is celebrated for the likenesses of Washington, Jefferson, Lincoln and Theodore Roosevelt, which were carved in stone by the late Gutzon Borglum. The Badlands offer very scenic masses of bare rock and clay unrelieved by any vegetation. It was in this state that the Sioux Indians, angered at the influx of the white men who were searching for gold, started the hostilities which ended in Custer's Massacre, on June 25, 1876, in Montana. South Dakota has the smallest county in the nation, Armstrong County, which had, in 1940, a population of forty-two and in the 1948 election, a recorded vote of seven (six for Truman).

The French trader, Verendrye, entered this state in 1743, when he came down from Canada looking for a western ocean

TENNESSEE

Capital: Nashville.
Governor: Gordon Browning (Dem., 1953).
Entered Union & (rank): June 1, 1796 (16).
Seceded from Union: June 24, 1861.

Re-entered Union: July 24, 1866.
Present constitution adopted: 1870.
Motto: Agriculture, commerce.
State flower: Iris (1933).
State tree: Tulip poplar (1947).
State bird: Mockingbird (1933).
Special legal holidays: Robert E. Lee's Birthday, Jan. 19; Andrew Jackson's Birthday, Mar. 15; Confederate Decoration Day and Jefferson Davis' Birthday, June 3; Nathan Bedford Forrest's Birthday, July 13; Primary Election Day (first Thursday in August in even years).
Songs: "My Homeland, Tennessee" (1925) and "When It's Iris Time in Tennessee" (1935).
Nickname: Volunteer State.
Origin of name: From the name of the ancient capital of the Cherokee tribe.
1940 population & (rank): 2,915,841 (15).
1950 population & (rank): 3,291,718 (16).
1940–50 population change: +12.9%.
Area & (rank): 42,246 sq. mi. (33).
Geographic center: In Rutherford Co., 5 mi. NE of Murfreesboro.
Number of counties: 95.
Largest cities: Memphis (396,000); Nashville (174,307); Chattanooga (131,041); Knoxville (124,769); Jackson (30,207).
State forests: 9 (71,272 ac.).
State parks: 15 (126,625 ac.).
State general revenue (1950): $222,083,000.
State general expenditure (1950): $236,881,000.

Tennessee won world prominence in 1945, for the atom bomb was made possible by the Clinton Engineer Works at Oak Ridge.

The state is now predominately industrial, with production including chemicals, foods, textiles, virgin aluminum, books, shoes, paper, machinery and electrical equipment. Mineral products include phosphates, zinc, high-grade pottery clay, coal and marble. Tennessee's agricultural production includes livestock, cotton, tobacco, dairy products, poultry, eggs and corn.

Tennessee is the home of TVA which operates 27 dams and distributes power from 8 others. Benefits of flood control, navigation and electrical power reach into 6 other states (Kentucky, Alabama, North Carolina, Georgia, Virginia, and Mississippi). The Tennessee River, already the most completely used major river in the world, is insufficient to supply energy needs, and the power system is being doubled by use of steam generating plants.

The Battle of Shiloh was fought in this state during the Civil War, and the fighting on Lookout Mountain was called "The battle above the clouds."

Hernando de Soto entered the state in 1541.

TEXAS

Capital: Austin.
Governor: Allan Shivers (Dem., 1953).
Entered Union & (rank): Dec. 29, 1845 (28).
Seceded from Union: Mar. 2, 1861.
Re-entered Union: Mar. 30, 1870.
Present constitution adopted: 1876.
Motto: Friendship.
State flower: Bluebonnet (1901).
State tree: Pecan (1919).
State bird: Mockingbird (1927).
State song: "Texas, Our Texas" (1930).
Special legal holidays: Lee's Birthday, Jan. 19; Texas Independence Day, Mar. 2; San Jacinto Day, Apr. 21; Jefferson Davis Day, June 3.
Nickname: Lone Star State.
Origin of name: From an Indian word meaning "friends."
1940 population & (rank): 6,414,824 (6).
1950 population & (rank): 7,711,194 (6).
1940–50 population change: +20.2%.
Area & (rank): 267,339 sq. mi. (1).
Geographic center: In McCulloch Co., 15 mi. NE of Brady.
Number of counties: 254.
Largest cities: Houston (596,163); Dallas (434,462); San Antonio (408,442); Fort Worth (278,778); El Paso (130,485).
State forests: 5 (6,510 ac.).
State parks: 46 (57,571 ac.).
State general revenue (1949–50): $561,916,900.84.
State general expenditure (1949–50): $527,252,453.48.

Big, sprawling, vigorous Texas, comprising one-twelfth of the entire area of the United States, is the richest political subdivision in the world with the possible exception of the Russian Ukraine, and is the only state that may, by Congressional statute, divide into five parts if it so desires. There is very little possibility of this ever being done because Texas and Texans live by its bigness. Texas is a natural leader in oil, natural gas, cotton, cattle, helium, sulfur, sheep, wool, onions and turkeys.

The distance from El Paso to Beaumont is a greater distance than from New York to Chicago. Texas supports possibly the most ardent local enthusiasts in the nation, who are always quick to boast of her richness, beautiful girls, size.

Amarillo has the only U. S. helium plant; over the Neches River, at Port Arthur, is the most elevated highway bridge in the world. In Pecos County is the deepest hole in the world—an oil well of 15,279 feet.

Cabeza de Vaca explored the state in 1528. Since 1685, it has been under the jurisdiction of 6 separate governments: those of France, Spain, Mexico, the Republic of Texas, the Confederacy and the United States.

UTAH

Capital: Salt Lake City.
Governor: J. Bracken Lee (Rep., 1953).
Organized as territory: Sept. 9, 1850.
Entered Union & (rank): Jan. 4, 1896 (45).
Present constitution adopted: 1896.
Motto: Industry.
State flower: Sego lily (1911).
State tree: Blue spruce (1933).
State bird: None.
State emblem: Beehive.
State song: "Utah, We Love Thee."
Special legal holidays: Arbor Day (some day between March 1 and April 15); Pioneer Day, July 24.
Nickname: Beehive State.
Origin of name: From the Ute tribe, meaning "people of the mountains."
1940 population & (rank): 550,310 (41).

1950 population & (rank): 688,862 (38).
1940–50 population change: +25.2%.
Area & (rank): 84,916 sq. mi. (10).
Geographic center: In Sanpete Co., 3 mi. N of Manti.
Number of counties: 29.
Largest cities: Salt Lake City (182,121); Ogden (57,112); Provo (28,937); Logan (16,832); Murray (9,006).
State forests: None.
State parks: 3 (10 ac.).
State general revenue (1950): $80,614,290.02.
State general expenditure (1950): $80,614,290.02.

Utah, rich in natural resources, has long been recognized for its copper, gold and silver. In addition, the state produces all the elements necessary for the manufacture of steel: iron, lime, dolomite, fluorspar, manganese and coal for coking. Uranium, long considered a waste material in the mining of vanadium, has recently supplanted all other products in the state.

Utah's crops requiring extensive irrigation include sugar beets, potatoes, hay, onions and wheat. Various garden crops, such as beans, peas and tomatoes, and fruits, such as pears, peaches, apples and apricots, make up an ever-growing industry. Eggs and commercial poultry are also produced.

Brigham Young led the Mormons into the area in 1847. Six times in the next forty years, the area applied for statehood and was refused because polygamy was practiced. In 1896, when polygamy was abandoned by the Mormon Church, Utah was admitted into the union.

Great Salt Lake, lying in the north central area, has long been a world wonder. It has no known outlet, and its salt content is about six times that of the ocean.

Spanish explorers in 1540 were probably the first whites in the area.

VERMONT

Capital: Montpelier.
Governor: Lee E. Emerson (Rep., 1953).
Entered Union & (rank): Mar. 4, 1791 (14).
Present constitution adopted: 1793.
Motto: Vermont—freedom and unity.
State flower: Red clover (1894).
State tree: Sugar maple (1949).
State bird: Hermit thrush (1941).
State song: "Hail to Vermont" (1937).
Special legal holiday: Bennington Battle Day, Aug. 16.
Nickname: Green Mountain State.
Origin of name: From the French, meaning "green mountain."
1940 population & (rank): 359,231 (46).
1950 population & (rank): 377,747 (45).
1940–50 population change: +5.2%.
Area & (rank): 9,609 sq. mi. (42).
Geographic center: In Washington Co., 3 mi. E of Roxbury.
Number of counties: 14.
Largest cities: Burlington (33,155); Rutland (17,659); Barre (10,922); Montpelier (8,599); St. Albans (8,552).
State forests: 24 (68,936 ac.).
State parks: 21 (6,226 ac.).
State general revenue (1950): $30,146,000.
State general expenditure (1950): $31,537,000.

Vermont, the only New England state without a seacoast (and the last to be settled because of this), is a U. S. leader in the production of maple syrup and asbestos and sometimes the leader in marble and granite. In ratio to population, it keeps more dairy cows than any other state. Vermont's soil is largely devoted to truck farming and fruit growing, its rugged area precluding extensive farming. This same quality, however, along with a bracing dry climate, makes the state popular as a summer resort and as a center of winter sports. Two-thirds of the total land area of the state is classified as forest land.

From 1777 to 1791, Vermont was an independent republic with all national perquisites and then was the first state after the original thirteen to join the Union. It was also the first state to forbid slavery. Vermont has been Republican since 1856; only Georgia on the Democratic side ties that record for consistency.

Samuel de Champlain, in 1609, was the first white man to see the state.

VIRGINIA

Capital: Richmond.
Governor: John S. Battle (Dem., 1954).
Entered Union & (rank): June 25, 1788 (10).
Seceded from Union: Apr. 17, 1861.
Re-entered Union: Jan. 27, 1870.
Present constitution adopted: 1902.
Motto: *Sic semper tyrannis* (Thus always to tyrants).
State flower: American dogwood (1918).
State bird: Cardinal.
State song: "Carry Me Back to Old Virginny" (1940).
Special legal holidays: Lee-Jackson Day, Jan. 19; Thomas Jefferson Day, Apr. 13; Confederate Memorial Day, May 30; Jefferson Davis Day, June 3.
Nicknames: The Old Dominion; Cavalier State.
Origin of name: In honor of Elizabeth, "Virgin Queen" of England.
1940 population & (rank): 2,677,773 (19).
1950 population & (rank): 3,318,680 (15).
1940–50 population change: +23.9%.
Area & (rank): 40,815 sq. mi. (35).
Geographic center: In Appomattox Co., 11 mi. S of E of Amherst.
Number of counties: 100, plus 24 independent cities.
Largest cities: Richmond (230,310); Norfolk (213,513); Roanoke (91,921); Portsmouth (80,039); Alexandria (61,787).
State forests: 6 (7,010 ac.).
State parks: 9 (19,026 ac.).
State general revenue (1950): $313,815,884.
State general expenditure (1950): $317,292,170.

Virginia is bound up with American history. Jamestown, founded in 1607, was the first permanent English settlement in North America; slavery was introduced in the state in 1619; the Revolutionary and Civil Wars were both ended in this state, and Virginia supplied seven of the first twelve Presidents.

Agriculture and tobacco are Virginia's mainstays. Apples, cotton, wheat, oats, po-

tatoes, barley and sweet potatoes are her crops. Richmond makes more cigarettes than any other city in the world. Virginia's hams are world famous. There is a substantial livestock industry in southwest Virginia. Industry, particularly in the textile lines, is developing rapidly.

Norfolk, together with Portsmouth and Newport News, makes up the busy Port of Hampton Roads.

Monticello, home of Jefferson; Mount Vernon, home of Washington; and Arlington National Cemetery bring visitors to this Old Dominion state annually.

The explorations of Sir Walter Raleigh, in 1584, were responsible for the birth of this state, which at that time included the entire Atlantic coast north of the Spanish settlements.

WASHINGTON

Capital: Olympia.
Governor: Arthur B. Langlie (Rep., 1953).
Organized as territory: Mar. 2, 1853.
Entered Union & (rank): Nov. 11, 1889 (42).
Present constitution adopted: 1889.
Motto: *Al-Ki* (Indian word meaning Bye and Bye).
State flower: Rhododendron (1949).
State tree: Hemlock (1947).
State bird: Goldfinch (1951).
State colors: Green and gold (1925).
State song: "Washington's Song" (1909).
Nicknames: Evergreen State; Chinook State.
Origin of name: In honor of Geo. Washington.
1940 population & (rank): 1,736,191 (30).
1950 population & (rank): 2,378,963 (23).
1940–50 population change: +37.0%.
Area & (rank): 68,192 sq. mi. (19).
Geographic center: In Chelan Co., 10 mi. S of W of Wenatchee.
Number of counties: 39.
Largest cities: Seattle (467,591); Spokane (161,721); Tacoma (143,673); Yakima (38,486); Bellingham (34,112).
State forests: 2 (290,000 ac.).
State parks: 75 (54,594 ac.).
State general revenue (1950–51): $365,460,367.84.
State general expenditure (1950–51): $389,797,755.21.

Washington annually leads the nation in lumber production. Its rugged surface is rich in stands of Douglas fir, yellow and white pine, spruce, larch and cedar. The state's other first is apples. Food and lumber products and a wide variety of goods flow from Washington factories.

Grand Coulee Dam, built on the Columbia River for power and irrigation, contains the world's most powerful hydroelectric plant, with a peaking capability of producing a continuous output of 2,340,000 kw. About 90% of the electric energy consumed in the state is generated by water-power plants. Low-cost power makes Washington the owner of more electric lights per capita than any other state in the nation.

The Hanford Engineer Works, north of Pasco, has been set up as the world's first full-scale plant for atom bombs.

Bruno Heceta landed in 1775.

WEST VIRGINIA

Capital: Charleston.
Governor: Okey L. Patteson (Dem., 1953).
Entered Union & (rank): June 20, 1863 (35).
Present constitution adopted: 1872.
Motto: *Montani semper liberi* (Mountaineers always free).
State flower: Rhododendron (1903).
State tree: Sugar maple (1949).
State bird: Cardinal (1949).
State colors: Blue and gold (unofficial).
State songs: "West Virginia, My Home Sweet Home" (approved 1947 as one of songs of state); "West Virginia Hills" (by custom).
Special legal holiday: West Virginia Day, June 20.
Nickname: Mountain State.
Origin of name: Same as for Virginia.
1940 population & (rank): 1,901,974 (25).
1950 population & (rank): 2,005,552 (29).
1940–50 population change: +5.4%.
Area & (rank): 24,181 sq. mi. (40).
Geographic center: In Braxton Co., 4 mi. E of Sutton.
Number of counties: 55.
Largest cities: Huntington (86,353); Charleston (73,501); Wheeling (58,891); Clarksburg (32,014); Parkersburg (29,684).
State forests: 7 (61,800 ac.).
State parks: 22 (35,275 ac.).
State general revenue (1950): $93,095,491.83.
State general expenditure (1950): $104,433,182.48.

Mountainous West Virginia is the coal mining leader of the nation. Geologists believe that if all other U. S. coal mines shut down, West Virginia alone could supply the country for 250 years with its deposits of bituminous (soft) coal. The state also ranks high in natural gas, oil, quarry products and hardwood lumber. Wheat, corn, oats, hay, tobacco and fruit are the leading crops.

West Virginia was created when its residents refused to secede from the Union and severed itself from Virginia during the Civil War era. Like many mountain states, West Virginia has an equable climate without extremes. White Sulphur Springs, in Greenbrier County, is a famous health resort. Mountain streams give the state one of the highest U. S. water-power potentials.

In 1671, Captain Thomas Batts and a party from eastern Virginia probably were the first whites to see the area.

WISCONSIN

Capital: Madison.
Governor: Walter J. Kohler (Rep., 1953).
Organized as territory: Apr. 20, 1836.
Entered Union & (rank): May 29, 1848 (30).
Present constitution adopted: 1848.
Motto: Forward.
State flower: Violet.
State tree: Sugar maple.
State bird: Robin.
State animal: Badger.
State song: "On Wisconsin" (unofficial).
Nickname: Badger State.
Origin of name: French corruption of an Indian word meaning "gathering of waters."
1940 population & (rank): 3,137,587 (13).
1950 population & (rank): 3,434,575 (14).
1940–50 population change: +9.5%.

Area & (rank): 56,154 sq. mi. (25).
Geographic center: In Wood Co., 9 mi. SE of Marshfield.
Number of counties: 71
Largest cities: Milwaukee (637,392); Madison (96,056); Racine (71,193); Kenosha (54,368); Green Bay (52,735).
State forests: 7 (267,657 ac.).
State parks: 32 (18,044 ac.).
State general revenue (1950): $278,997,000.
State general expenditure (1950): $272,753,000.

Wisconsin is the first dairying state in the nation and leads in such items as number of dairy cattle, and production of cheese and butter and milk products. Until some forty years ago, when its forests were exhausted, Wisconsin was a leader in lumbering. It has since turned its attention to agriculture and manufacturing. The making of paper, autos, beer, machinery and furniture are its main factory interests. Cranberries, hemp, oats, rye and tobacco are its secondary agricultural pursuits.

Wisconsin pioneered in social legislation, providing pensions for the blind (1907), aid to dependent children (1913) and old-age assistance (1925). In 1932, it was the first state to enact an unemployment compensation law. In labor legislation, the state has also pioneered in important laws, among them the first workmen's compensation law actually to take effect.

Jean Nicolet, French explorer, seeking a northwest passage in 1634, was the first white man to see the state.

WYOMING

Capital: Cheyenne.
Governor: Frank A. Barrett (Rep., 1955).
Organized as territory: July 25, 1868.
Entered Union & (rank): July 10, 1890 (44).
Present constitution adopted: 1890.
Motto: *Cedant arma togae* (Let arms yield to the gown).
State flower: Indian paintbrush (1917).
State tree: Cottonwood (1947).
State bird: Meadow lark (1927).
State insignia: Bucking horse (unofficial).
State song: "Wyoming State Song" (unofficial).
Special legal holiday: Arbor Day (by governor's designation).
Nickname: Equality State.
Origin of name: From the Indian, meaning "mountains and valleys alternating"; named after the Wyoming Valley in Pa.
1940 population & (rank): 250,742 (48).
1950 population & (rank): 290,529 (47).
1940–50 population change: +15.9%.
Area & (rank): 97,914 sq. mi. (8).
Geographic center: In Fremont Co., 58 mi. N of E of Lander.
Number of counties: 23, plus Yellowstone National Park.
Largest cities: Cheyenne (31,935); Casper (23,673); Laramie (15,581); Sheridan (11,500); Rock Springs (10,857).
State forests: None.
State parks: 2 (1,060 ac.).
State general revenue (1949–50): $42,246,000.
State general expenditure (1949–50): $41,618,000.

Wealthy in wool, cattle, oil and coal, Wyoming was first in U. S. history to insure woman's place in politics. In 1869, it gave women the vote and Mrs. Nellie Tayloe Ross, who held office in 1925–27, was the first U. S. woman governor.

Second in mean elevation to Colorado, Wyoming has many lures for the tourist trade, notably Yellowstone National Park. Cheyenne is famous for its annual "Frontier Days" celebration, which brings in visitors from everywhere. One of the world's largest subbituminous coal fields lies near Gillette. Big game hunting is good in many parts of the state.

Trappers in 1812 were probably the first white men to settle this state, although John Colter, a member of the Lewis and Clark expedition, reached the northwest corner in 1807.

Self-governing U. S. Territories

ALASKA

Capital: Juneau.
Governor: Ernest Gruening (1953).
Organized as territory: 1912.
Territorial flower: Forget-me-not.
Territorial bird: Raven (unofficial).
Territorial song: "Alaska, My Alaska" (unofficial).
Origin of name: Corruption of native word meaning "great country."
1939 population: 72,524.
1950 population: 128,643.
1939–50 population change: +77.4%.
Area: 586,400 sq. mi. (incl. Aleutians).
Geographic center*: 95 mi. south of Fort Gibbon.
Largest cities†: Anchorage (11,060), Juneau (5,818), Fairbanks (5,625), Ketchikan (5,202), Seward (2,063).

* Including islands. † 1950 preliminary figures.

Alaska, the biggest and wildest of U. S. possessions (including the Aleutian Islands) was called "Seward's Folly" in 1867, when that Secretary of State arranged for its purchase from Russia for $7,200,000. Since then Alaska has paid for itself scores of times.

Canned salmon is Alaska's biggest product. It mines gold, supplies most of U. S. tin and also turns out copper, platinum, coal, oil, gypsum, limestone and marble. The Pribilof Islands, in the Bering Sea, are world famous as the breeding ground of the Alaska fur seal, which is under careful government control. Beaver, muskrat, otter, mink and other furs also abound.

Mt. McKinley, in the south central part, is 20,300 feet high, the tallest peak in North America. With its wild interior, still partly unexplored, this territory is a hunter's paradise. With only one person for every five square miles, Alaska is by far the most thinly settled of U. S. lands. Sitka was its capital until 1906.

Alaska has magnificent glaciers and active volcanoes. Winter temperatures in the interior have been known to register 60° below zero. However, summer temperatures in the same area have been recorded at 99° above zero; and large parts of the territory, especially in the southeast, enjoy mild climate in both summer and winter.

Alaska's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Alaska as a state.

The Aleutians include the following island groups (and major islands): Fox Islands (Unimak, Akutan, Unalaska, Umnak); Islands of the Four Mountains (Chuginadak, Kagamil, Carlisle, Herbert); Andreanof Islands (Atka, Tanaga, Adak, Kanaga); Rat Islands (Kiska, Amchitka, Semisopochnoi, Rat); Near Islands (Agattu, Attu). In June 1942, the Japanese occupied Attu and Kiska. However, Attu was retaken by the U. S. in May 1943; Kiska was evacuated by the Japanese in Aug. 1943 after extensive shelling and bombing of the island.

Vitus Bering, a Dane working for the Russians, and Alexei Chirikov discovered Alaska and the Aleutians in 1741.

HAWAII

Capital: Honolulu (on Oahu).
Governor: Oren E. Long (1955).
Organized as territory: 1900.
Motto: *Ua Mau Ke Ea O Ka Aina I Ka Pono* (The growth of the land is perpetuated by righteousness).
Territorial flower: Hibiscus.
Territorial song: "Hawaii Ponoi" (unofficial).
Nickname: Paradise of the Pacific.
1940 population: 423,300.
1950 population: 499,794.
1940–50 population change: +18.1%.
Area: 6,454 sq. mi. (incl. outlying islands).
Counties: 4.
Largest cities*: Honolulu (245,612), Hilo (27,019), Wahiawa (8,341), Kailua-Lanikai (7,715), Wailuku (7,411).
*1950 preliminary figures.

Hawaii, 2,100 miles west-southwest of San Francisco, is a 390-mile chain of islets and 8 main islands—Hawaii, Kahoolawe, Maui, Lanai, Molokai, Oahu, Kauai, and Niihau. Kure (Ocean) Island, an uninhabited islet in the Leeward Islands, and Palmyra, in the Line Islands, are administratively part of Hawaii.

In addition, Baker, Canton, Enderbury, Howland, Jarvis, Johnston, Midway, and Wake are, for census purposes, part of Honolulu County, Hawaii; however, Hawaii has no jurisdiction over these islands.

Hawaii's temperature is mild and the soil is fertile for tropical fruits and vegetables. It grows 90 per cent of the world's pineapple. Cane sugar is its chief product and it also grows coffee, rice, cotton, bananas, nuts and potatoes. Some livestock is raised. In normal times, the tourist business is Hawaii's third biggest source of income. At least 86 per cent of the islands' population, although racially heterogeneous, is native.

Hawaii's highest peak, Mauna Kea, rises to 13,784 feet and is, in a sense, the world's highest mountain since it springs from an ocean floor 18,000 feet below sea level. Kilauea, on Hawaii, is one of the world's most active volcanoes. The islands have no snakes and their only native mammal is a small bat of which there are many species.

Hawaii's Governor is appointed by the President to a 4-year term, and there is a locally elected 2-house legislature. The territory's delegate to the U. S. House of Representatives has floor privileges but no vote. Legislation is pending in Congress for the admission of Hawaii as a state.

Hawaii was discovered in 1778 by Captain James Cook, an Englishman, who named it the Sandwich Islands. It was ruled by native monarchs until 1898 when it ceded itself to the U. S.

Non Self-governing U. S. Territories

AMERICAN SAMOA

Capital: Pago Pago (on Tutuila).
Governor: Phelps Phelps.
1940 population: 12,908.
1950 population: 18,937.
1940–50 population change: +46.7%.
Area: 76 sq. mi.

American Samoa, a group of seven main volcanic or coral islands in the South Pacific, comprises the island of Tutuila and all the other islands of the Samoan Group east of longitude 171° west of Greenwich, including Aunuu, Manua (Tau, Olosega and Ofu) and Swains Islands and Rose Atoll.

On Dec. 2, 1899, in a conference held in Washington, the U. S., Germany and Great Britain decided on the division of the Samoan Islands that held until World War I, after which New Zealand took possession of the German-mandated islands. In the 1900s, the high chiefs of the American group ceded possession to the U. S., and Congress accepted jurisdiction about twenty-five years later. On July 1, 1951, administration was transferred from the Navy to the Department of the Interior.

The principal products are copra and mats woven from local grass and leaves.

BAKER, HOWLAND AND JARVIS

These Pacific islands were not to play a role in the extraterritorial plans of the U. S. until May 13, 1936, when the U. S. perfected its claim. President F. D. Roosevelt, at that time, placed them under the control of and jurisdiction by the Secretary of the Interior for administration purposes. For census purposes, they are in Honolulu County, Hawaii.

Baker Island is a rectangular atoll with

an area of approximately one square mile and an elevation of twenty feet. It is about 1,880 miles from Hawaii.

Howland Island, a few miles to the north, is approximately one and a half miles long and half a mile wide and rises to an elevation of eighteen feet. Both these islands are near the crossing of the Equator and the International Date line.

Jarvis Island is several hundred miles to the east and is approximately two miles long by one and a half miles wide. It is slightly south of the Equator.

CANAL ZONE

Administrative center: Balboa Heights.
Governor: Brig. Gen. Francis K. Newcomer.
1940 population: 51,827.
1950 population: 52,822.
1940–50 population change: +1.9%.
Area: 553 sq. mi.

Fifty miles long and ten miles wide, with the Panama Canal traversing its middle, the Canal Zone is a protective belt of U. S. territory guarding the vital water link between the Atlantic and the Pacific Oceans.

The Canal Zone was granted to the U. S. by Panamá on Feb. 26, 1904, for $10,000,000 outright and an annual payment of $250,000, which was later increased to $430,000. The canal was opened ten years later.

The history of the Canal goes back to 1534 when King Charles V of Spain ordered a survey made. In 1879 the French obtained canal rights but gave up after twenty-five years of unsuccessful work. The U. S. then bought the French rights for $40,000,000 and set to work. The canal today measures 40.27 miles from shore line to shore line and 50.72 miles from deep water to deep water (Caribbean to Pacific). The railroad, running from Colón to Panamá City, covers 47.64 miles.

The locks making the climb from the Caribbean to the Pacific are Gatún Locks, Pedro Miguel Locks and Miraflores Locks, which have a total of six steps or levels. The locks are 1,000 feet long and 110 feet wide. Only U. S. Navy craft pass through free.

No private individuals are permitted to own land in the Canal Zone and the area is administered by a Governor appointed by the President of the U. S. On July 1, 1951, the Panama Railroad Co. became the Panama Canal Co. and took over the operation of the Canal.

Work is now being done to admit vessels now barred because of their size.

CANTON AND ENDERBURY

Canton and Enderbury islands, the largest of the Phoenix group, are jointly owned and supervised by the U. S. and Great Britain after an agreement signed on Apr. 6, 1939. Canton is triangular in shape and the largest of the eight islands of this group. It lies approximately 1,600 miles southwest of Hawaii in the Pacific and was discovered at the turn of the eighteenth century by U. S. whalers. It was surveyed by Commander R. W. Meade who named it after a whaler ship. It had, in 1940, a population of forty. Enderbury is rectangular in shape and is 2.7 miles long by one mile wide. It had, in 1940, a population of four and it lies about thirty-two miles southeast of Canton. For census purposes, both islands are in Honolulu County, Hawaii.

GUAM

Capital: Agaña.
Governor: Carlton Skinner.
1940 population: 22,290.
1950 population: 59,498.
1940–50 population change: +166.9%.
Area: 206 sq. mi.

Guam, the largest of the Mariana Islands, is independent of the trusteeship assigned to the U. S. in 1947. It was acquired by the U. S. from Spain in 1898 (occupied 1899) and was placed under Navy Department administration.

In World War II, Guam was seized by the Japanese on Dec. 11, 1941; but on July 27, 1944, it was once more under the U. S.

On Aug. 1, 1950, President Truman signed a bill which granted U. S. citizenship to the people of Guam and which established limited self-government. The civilian governor operates under supervision of the Department of the Interior.

The chief produce of the island is copra and coconut oil. Grown for local consumption are bananas, pineapples, corn, pears, etc.

JOHNSTON ISLAND

This island was originally discovered by Captain Charles James Johnston of *H.M.S. Cornwallis* on Dec. 14, 1807. On July 27, 1858, it was claimed by Hawaii and became a possession of the U. S. The island is about 600 miles southwest of Hawaii and about one and a half miles long by half a mile wide. For census purposes, it is in Honolulu County, Hawaii.

KINGMAN REEF

This reef was discovered by Captain W. E. Kingman in Nov., 1853, and is the smallest land of U. S. sovereignty. It is 150 feet long by 120 feet wide at high tide. At low tide, two other islets of this atoll appear. It is approximately 1,000 miles south of Hawaii.

KURE (OCEAN) ISLAND. See HAWAII

MIDWAY

Midway, lying about 1,200 miles west-northwest of Hawaii, was discovered by Captain N. C. Brooks of the Hawaiian bark *Gambia* on July 5, 1859, in the name of the U. S. It was formally declared a U. S. possession in 1867, and in 1903 Theodore Roosevelt made it a naval reservation. Sand and Eastern Islands, with 850 acres and 328 acres respectively, are its largest individual islands. In 1935 it became a regular stopover for commercial transpacific flights. During the past war it was the scene of the first decisive defeat suffered by the Japanese. The total group comprises an area of twenty-eight square miles. For census purposes, it is in Honolulu County, Hawaii.

PALMYRA. See HAWAII

PUERTO RICO

Capital: San Juan.
Governor: Luis Muñoz Marín.
Song: "La Borinqueña."
1940 population: 1,869,255.
1950 population: 2,210,703.
1940–50 population change: +18.3%.
Area: 3,435 sq. mi.

Puerto Rico, ninety-five miles long and at the northeast head of the Caribbean Sea, is a big cane sugar and rum producer and one of the most densely populated sections in the world. Other crops are cigars, citrus fruits, pineapples, rope and coffee.

The island was seized by the U. S. in 1898 in the Spanish-American War. It is administered by a Governor, who, as a result of a bill signed by President Truman on Aug. 5, 1947, is elected by popular vote, and a locally-elected Congress. There is also a Resident Commissioner in Washington with a voice in the House of Representatives but no vote. On Jan. 4, 1951, Puerto Ricans voted for self-rule under a constitution. When the constitution is approved by the U. S. Congress, the island will receive full local autonomy, although it will remain a U. S. possession.

The island was formerly known as Porto Rico, but in 1932, Congress made the present spelling official.

Columbus discovered Puerto Rico and Ponce de León conquered it for Spain in 1509.

VIRGIN ISLANDS OF THE U. S.

Capital: Charlotte Amalie (on St. Thomas).
Governor: Morris F. de Castro.
1940 population: 24,889 (St. Croix, 12,902; St. Thomas, 11,265; St. John, 722).
1950 population: 26,665.
1940–50 population change: +7.1%.
Area: 133 sq. mi. (St. Croix, 82; St. Thomas, 32; St. John, 19).

The Virgin Islands, consisting of 9 main islands and some 75 islets, were discovered by Columbus in 1493. Since 1666, England has held 6 of the main islands; the other 3 (St. Croix, St. Thomas and St. John), as well as about 50 of the islets, were eventually acquired by Denmark, which named them the Danish West Indies. In 1917, these islands were purchased by the U. S. from Denmark for $25 million.

Congress granted U. S. citizenship to Virgin Islanders in 1927; and, in 1931, administration was transferred from the Navy to the Department of the Interior. Universal suffrage was given in 1936 to all persons who could read and write the English language. The Governor is appointed by the President of the U. S.

About 70% of the population is Negro, and there is limited farming, fishing and cattle raising. Vegetables, citrus fruits and coconuts are raised, and the chief items of export are rum and bay rum.

WAKE ISLAND

Wake Island, about halfway between Midway and Guam, is actually the three islets of Wilkes, Peale and Wake. They were discovered by the British in 1796 and annexed by the U. S. in 1898. The entire area comprises four square miles. In 1938, Pan American Airways established a seaplane base and it has been used as a commercial base since then. On Dec. 8, 1941, it was attacked by the Japanese, who finally took possession on Dec. 23. It was surrendered by the Japanese on Sept. 4, 1945. On Oct. 15, 1950, it was the scene of a conference between President Truman and General MacArthur.

It is uninhabited, and its area is included in that of Honolulu County, Hawaii.

U. S. Trusteeships

The Mariana, Caroline and Marshall Islands were purchased by Germany from Spain in 1899. They were occupied by the Japanese in 1914; and, in 1919, they were mandated to Japan by the League of Nations. On Apr. 2, 1947, the 134th meeting of the U. N. Security Council adopted and set up the Strategic Trust Territory of the Pacific Islands and assigned the Marianas, Carolines and Marshalls to the U. S. The measure was approved by Congress on July 18, 1947. Administration was transferred from the Navy to the Department of the Interior on July 1, 1951. The High Commissioner is Elbert Thomas.

The entire group comprises more than 1,400 islands but the total land area is only 846 square miles, many of the islands being tiny coral reefs. The Chamorros and Kanakas are the main racial groups, the former being less numerous but more advanced in living habits.

MARIANA ISLANDS

The Mariana Islands, east of the Philippines and south of Japan, include the islands of Guam, Rota, Saipan, Tinian, Pagan, Guguan, Agrihan and Aguijan. Guam, the largest, is independent of the trusteeship, having been acquired by the U. S. from Spain in 1898. (For information on Guam, *see* page 49.)

The soil is suitable for the raising of sugar cane, and a large sugar industry has been built up.

CAROLINE ISLANDS

The Caroline Islands, east of the Philippines and south of the Marianas, include the Yap, Truk and Palau groups and the islands of Ponape and Kusaie. The Palaus are sometimes called the Western Carolines.

The islands are composed chiefly of volcanic rock, and their peaks rise 2,000 to 3,000 feet above sea level. Chief products of the islands are coconuts and copra.

MARSHALL ISLANDS

The Marshall Islands, east of the Carolines, are divided into two chains: the western or Ralik group, including the atolls Jaluit, Kwajalein, Wotho and Eniwetok; and the eastern or Ratak group, including the

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atolls Mili, Majuro, Maloelap, Wotje, Likiep and Bikini.

The islands are of the coral-reef type and rise only a few feet above sea level. The chief crop is coconuts; exports include copra, tortoise shell, mother-of-pearl, etc.

Bikini and Eniwetok have been the scene of several atom-bomb tests.

Islands Under Provisional U. S. Administration

In accordance with the Japanese peace treaty signed Sept. 8, 1951, the U. S. may propose that the U. N. assign to it, as a trusteeship, the following former Japanese territory: the Ryukyu Islands south of 29° n. lat. (largest: Okinawa); the Bonin Islands (largest: Chichi Jima); the Volcano Islands (including Iwo Jima); Rosario Island; Parece Vela; and Marcus Island. It was also agreed in the treaty that, until such trusteeship is actually granted, the U. S. will administer the islands.

CITIES

We planned the INFORMATION PLEASE ALMANAC as a book of national scope and interest. We avoided emphasis on and identification with a single city or state, as has been characteristic of all almanacs heretofore. Therefore, in designing this section on cities of the United States, we have included as many as our space permitted. To obtain accurate and authoritative information we have gone to the city officials and they have not only furnished the statistics, but have checked the narratives in this section. We appreciate the co-operation of all these city officials.

ATLANTA, GA.

Incorporated as city: 1847.
Mayor: William B. Hartsfield (Jan., 1954).
1940 population & (rank): 302,288 (28).
1950 population & (rank): 331,314 (33).
1940–50 population change: +9.6%.
1950 area: 35.43 sq. mi. (To be extended to 116 sq. mi. by annexation Jan. 1, 1952.)
Altitude: Highest, 1,050 ft.; lowest, 940.
Location: In NW central part of state, near Chattahooche River.
Counties: In Fulton and De Kalb Cos.; seat of Fulton Co.
Churches: For whites, more than 330; for Negroes, more than 150.
City-owned parks: 88 (1,600 ac.).
Telephones: 210,000.
Families with radios: 195,000.
Television sets: 110,000.
Radio stations: AM, 10; FM, 5.
Television stations: 2.
Assessed valuation (1950): $490,635,416.
City tax rate (1950): $16 per $1,000.
Bonded debt (1950): $20,835,461.
Revenue (1950): $20,395,352.15.
Expenditure (1950): $19,404,552.27.

One of the three largest paintings in the world is in Atlanta's Grant Park. The Cyclorama is 400 feet around, 50 feet high and weighs 18,000 pounds. It depicts one of the great moments of Atlanta's history—the Battle of Atlanta.

Atlanta was a strategic point for the Confederates in the Civil War—the chief base for recruiting and supplies in the far South, and the most important railway junction. The Battle of Atlanta, depicted in the Cyclorama, was fought on July 22, 1864, southeast of the city. General John B. Hood, commanding the Confederate forces, attacked General Sherman's army in an attempt to stop his progress through Georgia. The battle was inconclusive, the casualties terrific: an estimated 35,000. The two armies settled down to a siege which ended with the fall of Atlanta on Sept. 1.

General Sherman took possession of the city, rested his army until November, then burned Atlanta to the ground and started his devastating march to the sea.

Today Atlanta is one of the important financial and industrial centers of the Southeast. Its factories turn out 3,300 different commodities, including cotton goods, cottonseed oil, furniture and machinery. One of its best-known products is Coca-Cola, the formula for which was devised in an Atlanta home. It was first sold in 1886 at a little drugstore by the old town well. The present-day Coca-Cola plant in Atlanta, which is open to visitors, makes the syrup that supplies soda fountains and bottling plants throughout the Southeast.

BALTIMORE, MD.

Incorporated as city: 1797.
Mayor: Thomas D'Alesandro, Jr. (May, 1955).
1940 population & (rank): 859,100 (7).
1950 population & (rank): 949,708 (6).
1940–50 population change: +10.5%.
1940 area: Land, 78.7 sq. mi.; inland water, 6.9.
Altitude: Highest, 490 ft.; lowest, sea level.
Location: On upper Chesapeake Bay at mouth of Patapsco River.
County: Independent city.
Churches: Roman Catholic, 65; Jewish, 57; Protestant and other, 491 (150 colored).
City-owned parks: 148 (5,093 ac.).
Telephone subscribers: 198,635.
Radio stations: AM, 8; FM, 4.
Television stations: 3.
Assessed valuation (1951): $2,441,210,616.
City tax rate (1951): $2.62 per $100.
Net bonded debt (Jan. 1, 1951): $159,543,951.
Revenue (1950 budget): $111,826,728.
Expenditure (1950 budget): $104,305,378.

Baltimore's fine harbor has made it the second port of the United States in foreign shipping tonnage. It has been an important port since the days of sailing vessels, and also a ship-building center. The Baltimore clipper was one of the best sailing ships of its day and was used extensively in world trade.

One of the major industrial centers of the U. S., Baltimore is noted for the diversity of its factory output and for its prominence in many individual lines of manufacture. The city carries on a large wholesale and jobbing trade, is an important banking and financial community, and is a leader in the writing of casualty insurance and fidelity and surety bonds.

Baltimore is the home of the internationally famous Johns Hopkins Hospital and Medical School and the University of Maryland Hospital and Medical School, two of the nation's best known medical institutions. The University of Maryland Dental School (oldest dental school in the world, founded in 1840) also is located in Baltimore.

Among the historical landmarks in the state is Ft. McHenry, whose shelling by the British in 1814 inspired Francis Scott Key's "The Star-Spangled Banner." It has been restored to its appearance in the early nineteenth century with officers' kitchen and mess rooms containing replicas of the artillery pieces used in 1812. The E. Berkley Bowie collection of firearms is there, together with furniture of the period and a flag exhibit. It is open to the public.

In addition to its pioneer history in shipping, Baltimore was the home of the pioneer railroad in the United States—the Baltimore and Ohio—and the first railroad passenger and freight station, erected in 1830.

BIRMINGHAM, ALA.

Incorporated as city: 1871.
Mayor: W. Cooper Green (Nov., 1953).
1940 population & (rank): 267,583 (35).
1950 population & (rank): 326,027 (34).
1940–50 population change: +21.8%.
1940 area: Land, 65.32 sq. mi.; inland water, 0.1.
Altitude: Highest, 900 ft.; lowest, 565.
Location: In N central part of state.
County: Seat of Jefferson, Co.
Churches: Protestant, 162; Roman Catholic, 26; Jewish, 3.
City-owned parks: 55 (1,053 ac.).
Telephones: 130,000.
Television sets: 40,000.
Radio stations: AM, 9; FM, 2.
Television stations: 2.
Assessed valuation (1950): $297,697,041.
City tax rate (1950): $18 per $1,000.
Net bonded debt (Aug. 31, 1950): $15,529,291.96.
Revenue (1951 budget): $16,511,295.
Expenditure (1951 budget): $16,503,005.

Pioneer Southern aristocrats once lived in the heart of Birmingham, but the tide of commerce has swept over the city in the last half century. The beautiful residential districts and the stately homes have now moved to the hills south of the city. For Birmingham itself has been transformed into the "Pittsburgh of the South," the leading iron and steel manufacturing center—as it should be, since it was named for England's great steel-producing city. Huge steel mills and blast furnaces utilize the three natural resources—coal, iron ore and limestone—that are needed for steel. All are produced in the vicinity.

Other products of Birmingham's industries are heavy machinery, cement, freight cars, stoves, textiles. From Red Mountain, just southeast of the city, one can look down on the spectacular sight of flaming blast furnaces that light up the city and Jones Valley. In Vulcan Park, on US 31, at the top of Red Mountain, stands the iron statue of Vulcan, god of fire, created by Guiseppi Moretti from pig iron produced in the Birmingham area. The statue stands 53 feet high and weighs 60 tons.

BOSTON, MASS.

Incorporated as city: 1822.
Mayor: John B. Hynes (Jan., 1954).
1940 population & (rank): 770,816 (9)
1950 population & (rank): 801,444 (10).
1940–50 population change: +4.0%.
1940 area: Land, 46.1 sq. mi.; inland water, 19.8.
Altitude: Highest, 330 ft.; lowest, sea level.
Location: On Massachusetts Bay, at mouths of Charles and Mystic Rivers.
County: Seat of Suffolk Co.
Churches: Protestant, 178; Roman Catholic, 80; Jewish, 40; others, 64.
City-owned parks: 108 (821.29 ac.).
Telephones: 326,000.
Radio sets (Greater Boston Area): 870,000.
Television sets (Greater Boston Area): 424,560.
Radio stations: AM, 8; FM, 6.
Television stations: 2.
Assessed valuation (1951): $1,570,760,000.
City tax rate (1950): 62.80 per $1,000.
Net bonded debt (1951): 74,813,627.99.
Revenue (1949): $112,147,928.18.
Expenditure (1949): $113,333,113.90.

No city in the U. S. is richer in historical associations than Boston, and no city has retained more of its original buildings as memorials to America's past.

Puritans from England settled at Boston in 1630, only ten years after the Pilgrims had landed at Plymouth in 1620. Fourteen years later, the pioneer Bostonians set aside the first public park in the U. S.—the Boston Common—for use as a "cow pasture and training field." The poet Emerson took his mother's cow there to graze. But certain people did not enjoy the Boston Common, because they were put in the stocks for profaning the Sabbath and other errant ways. The Common now contains many monuments and tablets.

Fifteen years after the original settlement of Boston, the first free public school in America was opened in 1635. Today Boston and Cambridge (across the Charles River) not only have Harvard University, but also nine other prominent institutions of higher learning.

Following are some of the historic places still extant in Boston which recapitulate the city's great place in the annals of America:

(1) The Old State House, built in 1713 on the site of the first Town House (1658). In front of it occurred the Boston Massacre (1770) in which British troops fired on a mob of citizens, killing six and fanning the flames of revolt. A few years later the Declaration of Independence was proclaimed from the balcony.



(2) The Old South Meeting House, erected first in 1669 and rebuilt in 1729. Here Boston citizens gathered to decide the fate of the hated tea tax imposed by the British. The "Boston Tea Party" followed in 1773, and the British Parliament retaliated by closing the port. Two years later the British attempted to seize the colony's military stores at nearby Concord. In order to thwart the seizure, Paul Revere made his famous ride that opened the Revolutionary War.

(3) Paul Revere House is the oldest house in Boston, built about 1660 and bought by Paul Revere in 1770. It is now restored and furnished as it was in the days of Revere; and, like other historic places, it is open to the public.

(4) The Old North Church (1723), which is the oldest church building in Boston. Signal lanterns were displayed in the steeple to warn Paul Revere of the approach of the British.

(5) Faneuil Hall, the "Cradle of Liberty," which was the scene of stirring mass meetings during the revolutionary movement, and which was used by British officers as a theater during the occupation of the city. It now has historical paintings and a military museum.

Today Boston is the largest market of the shoe and leather industries in the world and also the largest wool market and the greatest fishing port in the U. S.

BUFFALO, N. Y.

Incorporated as city: 1832.
Mayor: Joseph Mruk (Jan., 1954).
1940 population & (rank): 575,901 (14).
1950 population & (rank): 580,132 (15).
1940–50 population change: +0.7%.
1940 area: Land, 39.4 sq. mi.; inland water, 10.8.
Altitude: Highest, 680 ft.; lowest, 571.

Location: At east end of Lake Erie, on Niagara River.
County: Seat of Erie Co.
Churches: Protestant, 268; Roman Catholic, 73; Jewish, 16; others, 34.
City-owned parks: 14 (2,000 ac.).
Telephones: 199,325.
Radio sets: 290,000.
Television sets: 62,192.
Radio stations: AM, 6; FM, 5.
Television stations: 1.
Assessed valuation (1951): $994,927,080.
City tax rate (1951): $29.43 per $1,000.
Bonded debt (1951): $47,548,427.
Revenue (1951–52 budget): $52,746,543.02.
Expenditure (1951–52 budget): $52,746,543.02.

The first ship to sail the Great Lakes—the *Griffin*—was built near the present site of Buffalo by La Salle in 1679. Buffalo was still a relatively small town in 1813 when the British captured it and set its homes and buildings afire. Two years later, the town was rebuilt, and it began to thrive with the coming of the Erie Canal.

Today, Buffalo is the leading inland port of the U. S. in terms of the value of its commerce. The Great Lakes steamers connect it with Chicago and Duluth; and ships of foreign nations frequently visit its harbor. In addition, it is the second largest railroad center in the U. S. Both by water and by rail, Buffalo is a geographical middleman between the Midwest and the East. Much of the grain of the Midwest moves through the city, which can store in its elevators 57 million bushels of grain, chiefly wheat. This flow of wheat has made Buffalo the leading flour-milling and feed-manufacturing city in the world. Over 14 million barrels of flour are milled in Buffalo each year.

Buffalo is the twelfth largest U. S. city in manufacturing according to the 1947 Census of Manufactures, and the Buffalo industrial area is eleventh in value added by manufacture.

Adjoining Buffalo is Niagara Falls, which for generations has been the favorite scenic spot of honeymooners. The Niagara River is divided by Goat Island and plunges over the escarpment in two parts: the American Falls, 167 feet high, and the Canadian Falls, 158 feet high.

CHICAGO, ILL.

Incorporated as city: 1837.
Mayor: Martin H. Kennelly (Apr., 1955).
1940 population & (rank): 3,396,808 (2).
1950 population & (rank): 3,620,962 (2).
1940–50 population change: +6.6%.
1940 area: Land, 206.7 sq. mi.; inland water, 4.6.
Altitude: Highest, 665 ft.; lowest, 581.
Location: On lower west shore of Lake Michigan.
County: Seat of Cook Co.
Churches: Protestant, 1,650; Roman Catholic, 289; Jewish, 165.
City-owned parks: 300 (8,557 ac.).
Telephones: 1,537,280.
Radio sets: 2,235,090.
Television sets: 940,000.
Radio stations: AM, 25; FM, 22.
Television stations: 4.
Assessed valuation (1950): $8,109,151,017.
City tax rate (1950): $3.288 per $100.
Gross bonded debt (1950): $386,394,100.
Revenue (1951): $471,797,592.71.
Expenditure (1950): $471,732,456.69.

The first white men known to have visited Chicago were Joliet and Marquette in 1673. Fort Dearborn, a blockhouse and stockade, was built in 1804, but was evacuated in 1812, with more than half of its garrison massacred at what is now the foot of 18th Street. Not until 1830 was the town laid out. Forty-one years later it was destroyed in the great fire.

Chicago today is the greatest slaughtering and meat-packing center in the world. Visitors to the Union Stock Yards can go on tours through the Armour plant and the Swift plant. Chicago also is one of the major grain-trading centers. There is a visitors' gallery overlooking the trading floor in the Chicago Board of Trade building, which is 44 stories and has an observatory 524 feet above the street. The Merchandise Mart, which covers two square blocks, is the second largest office building in the world, exceeded only by the Pentagon in Washington. Tours are conducted daily in which visitors can see showrooms of leading manufacturers of home goods. The city's factories turn out agricultural implements, electrical machinery and railway cars, among many other products.

Chicago stretches along the shore of Lake Michigan for 22 miles, and has many beaches and lake shore parks. The Chicago Natural History Museum ranks among the world's foremost museums of anthropology, botany, zoology and geology. It has the world's largest collection of meteorites, and is noted also for its dioramas of prehistoric man in the Hall of the Stone Age.

CINCINNATI, OHIO

Incorporated as city: 1819.
Mayor: Carl W. Rich (Nov., 1953).
City Manager: W. R. Kellogg (Apptd. 1944).
1940 population & (rank): 455,610 (17).
1950 population & (rank): 503,998 (18).
1940–50 population change: +10.6%.
1950 area: Land, 76.4 sq. mi.; inland water, 0.
Altitude: Highest, 820 ft.; lowest, 435.
Location: In SW corner of state on Ohio River.
County: Seat of Hamilton Co.
Churches: Protestant, 500*; Roman Catholic, 67; Jewish, 10.
City-owned parks: 84 (3,656 ac.).
Telephones: 333,495.
Families with radios: 161,000.
Television sets: 107,000.
Radio stations: AM, 5; FM, 3.
Television stations: 3.
Assessed valuation (1951): $1,090,000,000.
City tax rate (1950): $11.70 per $1,000.
Bonded debt (1950): $79,002,125.65.
Revenue (1950): $27,754,246.40.
Expenditure (1950): $26,031,795.11.

* Data for Hamilton County.

Cincinnati began life in 1788 as a small settlement called Losantiville, perched on a plateau above the Ohio River. Its strategic location in the Western Territory led to the building of Fort Washington, the most ambitious military establishment in the territory. The community that grew up around the fort was named Cincinnati, after the Society of Cincinnatus which stemmed from Roman times.

The first legislature of the Northwest Territory met here in 1799 and elected as its delegate to Congress William Henry Harrison, who later became President of the U. S. A much later President, William Howard Taft, was born in a suburb of Cincinnati. The Taft Museum, which is open to the public every day, serves as a reminder of the family's role in the city's prominence. It contains an art collection donated by Mr. and Mrs. Charles P. Taft.

Cincinnati's industrial concerns include the Proctor and Gamble Soap Company, the Crosley Radio Corporation, the Gruen Watch Company, and the United States Playing Card Company, the largest establishment of its kind in the world.

CLEVELAND, OHIO

Incorporated as city: 1836.
Mayor: Thomas A. Burke (Nov., 1953).
1940 population & (rank): 878,336 (6).
1950 population & (rank): 914,808 (7).
1940–50 population change: +4.2%.
1940 area: Land, 73.1 sq. mi.; inland water, 0.
Altitude: Highest, 865 ft.; lowest, 573.
Location: On Lake Erie at mouth of Cuyahoga River.
County: Seat of Cuyahoga Co.
Churches: Protestant, 377; Roman Catholic, 87; Jewish, 36; others, 6.
City-owned parks: 35 (2,278 ac.).
Telephones: 517,795.
Radio sets: 1,125,000.
Television sets: 260,185*.
Radio stations: AM, 8; FM, 6.
Television stations: 3.
Assessed valuation (1949): $1,734,380,643.
City tax rate (1949): $32.70 per $1,000.
Bonded debt (1949): $112,129,000.
Revenue (1949): $145,000,000.
Expenditure (1949): $133,000,000.

* In northern Ohio; 80% in Metropolitan Cleveland.

The largest city in Ohio and sixth in the U. S., Cleveland was founded in 1796 by General Moses Cleaveland, who was the head surveyor of the Connecticut Land Company. This company had bought three million acres in what is now northern Ohio, paying 40 cents an acre. An acre in downtown Cleveland today would bring some two million dollars.

Cleveland is an important Great Lakes shipping point and the site of iron and steel manufacturing. Other products include paints, varnishes, electrical appliances, chemicals, and automobile parts.

In addition to industry, Cleveland is interested in cultural developments. It has the only municipally owned and operated dramatic project in the country—Cain Park Theatre, in suburban Cleveland Heights, having its season in summer and early autumn. The Cleveland Orchestra, which is nationally known, gives informal pop concerts in the summer and a regular series in the winter.

In the Cleveland Cultural Gardens, a mile-long strip of park area, more than thirty nationality groups represented in Cleveland's population are creating gardens as memorials to peace.

DALLAS, TEX.

Incorporated as city: 1871.
Mayor: J. B. Adoue, Jr. (May, 1953).
City Manager: Charles C. Ford (apptd. 1950).
1940 population & (rank): 294,734 (31).
1950 population & (rank): 434,462 (22).
1940–50 population change: +47.4%.
1940 area: Land, 40.6 sq. mi.; inland water, 1.2.
Altitude: Highest, 500 ft.; lowest, 390.
Location: In NE part of state, on Trinity River.
County: Seat of Dallas Co.
Churches: 500.
City-owned parks: 80 (5,721 ac.).
Radio sets: 336,000.
Television sets: 55,000.
Radio stations: AM, 7; FM, 3.
Television stations: 2.
Assessed valuation (1950): $676,000,000.
City tax rate (1950): $1.85 per $100.
Net bonded debt (Oct. 1, 1950): $74,180,891.
Revenue (1951, budget): $27,669,336.
Expenditure (1951, budget): $27,669,336.

The Dallas Cotton Exchange handles about two million bales of cotton a year in normal times. The city produces more cotton gins than any other city in the world.

Dallas is also pre-eminent in the production of saddlery and harness and leather goods, and ranks third in the distribution of farm implements.

The Fair Park in East Dallas, is a $15-million permanent exposition plant, open as a city park. It is the home of the annual State Fair. Its Hall of State is a shrine to Texas heroes and contains two of the world's largest murals.

DENVER, COLO.

Incorporated as city: 1861.
Mayor: Quigg Newton (June, 1955).
1940 population & (rank): 322,412 (24).
1950 population & (rank): 415,786 (24).
1940–50 population change: +29.0%.
1950 area: Land, 67.74 sq. mi.; inland water, 0.8.
Altitude: Highest, 5,470 ft.; lowest, 5,130.
Location: In NE central part of state, on South Platte River.
County: Coextensive with Denver Co.
Churches: Protestant and miscellaneous, 285; Roman Catholic, 27; Jewish, 16.
City-owned parks: 42 (1,634 ac.).
City-owned mountain parks: 30 (20,897 ac.).
Families with telephones: 113,783.
Families with radios: 105,600.
Radio stations: AM, 6; FM, 3.
Television stations: None.
Assessed valuation (1951): $619,701,960.
City tax rate (1951): $49.50 per $1,000.
Bonded debt (1951): $12,528,000.
Revenue (1951): $27,914,765.
Expenditure (1951): $27,260,031.

A traveler going west across the U. S. crosses the great plains and comes upon Denver lying just at the foot of the Rocky Mountains. The city was born in 1858 when gold was discovered in the sands of Cherry Creek. It began as a tough village of cabins, shacks and tents.

Denver now is the cultural and transportation center of a vast Rocky Mountain region. Its important industries include meat packing plants, flour mills and factories making tires, saddlery and porcelain.

No other city in the country has such a magnificent system of mountain parks. The nearest is 13 miles from the city, and the farthest limit of the park system extends 50 miles to the west. The main circle drive winds up Lookout Mountain to the top where the rock tomb of Buffalo Bill is situated, along with the Cody Museum. The municipal game preserve has herds of buffalo, elk and deer.

The most spectacular view of the region is obtainable from Mount Evans, 14,260 feet, which is reached by a scenic drive that is the highest automobile road in North America. Other drives through some of the grandest scenery of the Rockies are to Colorado Springs, to the south, and to Estes Park, which is the eastern entrance to Rocky Mountain National Park.

DES MOINES, IOWA

Incorporated as city: 1857.
Mayor: A. B. Chambers (Apr., 1954).
City Manager: Leonard G. Howell (Apptd. 1950).
1940 population & (rank): 159,819 (55).
1950 population & (rank): 177,965 (53).
1940–50 population change: +11.3%.
1950 area: Land, 53.8 sq. mi.; inland water, 0.
Altitude: 861 ft.
Location: In south central part of state, at junction of Raccoon and Des Moines Rivers.
County: Seat of Polk Co.
Churches: Protestant, 184; Roman Catholic, 13; Jewish, 4.
City-owned parks: 57 (1,613.25 ac.).
Telephones: 88,687.
Radio sets: 244,837.
Television sets: 12,000.
Radio stations: AM, 6; FM, 4.
Television stations: None.
Assessed valuation (1951): $174,695,039.
City tax rate (1951): $27.696 per $1,000.
Bonded debt (1951): $7,918,175.
Revenue (1951): $9,084,637.
Expenditure (1951): 7,099,090.87.

Des Moines sits at the heart of a prairie state, Iowa, which has more land under cultivation, in proportion to its area, than any other state. More corn is produced in Iowa than in any other area of equal size in the world—one-fifth of the corn crop of the U. S. More hogs are raised in Iowa than in any other state, and Iowa is second only to Texas in the number of cattle.

Des Moines, the home of 51 home insurance companies, and the location of more than 100 state, district or regional offices of other insurance companies, is known as the insurance center of the west. More than 5,000 people are engaged in the insurance business in Des Moines.

Des Moines manufacturing plants produce over 500 different products valued at more than $330,000,000 annually and sold throughout the world. These products include: cosmetics; chemicals; medicines; wearing apparel, including hosiery, gloves, caps and sports goods; tools; machinery; automobile accessories; tires; food products; agricultural equipment; airplane parts and many others.

Although Iowa as a whole is agricultural, Des Moines is surrounded by rich coal fields on both sides of the Des Moines River. The coal has contributed to the industrial development of the city, which has almost 300 manufacturing plants.

DETROIT, MICH.

Incorporated as city: 1824.
Mayor: Albert E. Cobo (Jan., 1954).
1940 population & (rank): 1,623,452 (4).
1950 population & (rank): 1,849,568 (5).
1940–50 population change: +13.9%.
1940 area: 137.9 sq. mi.; inland water, 4.1.
Altitude: Highest, 685 ft.; lowest, 574.
Location: In SE part of state, on Detroit River.
County: Seat of Wayne Co.
Churches: Protestant, 850*; Catholic, 170; Jewish, 33.
City-owned parks: 339 (5,560 ac.).
Telephones: 883,000.
Radio sets: 787,770.
Television sets: 511,000.
Radio stations: AM, 6; FM, 10.
Television stations: 3.
Assessed valuation (1951): $4,196,857,170.
City tax rate (1951): $22.276 per $1,000.
Net bonded debt (June 30, 1951): $253,647,009.
Revenue (1951): $278,861,856.†
Expenditure (1951): $280,209,851.†

* Metropolitan area. † Excludes school system.

Detroit is the oldest city of any size west of the seaboard colonies, having been founded in 1701, more than a century before Chicago was founded. The French were the settlers, and they gave the city its name from their word meaning "strait." They referred to the 27-mile-long Detroit River which connects Lake Erie and Lake St. Clair. The river forms part of the international boundary, and marks the only point where Canada lies directly south of U. S. territory.

Because of its strategic location, Detroit was fought over by the French, the British and the Indians. During the Revolutionary War, it served as headquarters for the British forces in the Northwest. The first steam vessel, the *Walk-in-the-Water*, made its appearance on the Great Lakes in 1818, and Detroit was the western terminus for most of its voyages from Buffalo. Today hundreds of ships, carrying the immense commerce of the Great Lakes, call at Detroit and link it by water to all the important cities on the Great Lakes. Detroit ranks fourth in the U. S. as an exporting port.

No other city in the world equals Detroit as an automobile-manufacturing center. The plants include Ford, Cadillac, Hudson, Packard, Chrysler and Kaiser-Frazer. Most of the plants are open for public tours. Apart

from automobiles, Detroit manufactures a wide range of products— adding machines, pharmaceuticals, steel barrels, television equipment.

Belle Isle, a thousand-acre park in the Detroit River, has bathing and boating facilities, tennis and golf, zoological gardens and an aquarium.

HARTFORD, CONN.

Incorporated as city: 1784.
Mayor: Joseph V. Cronin (Dec., 1953).
City Manager: Carleton F. Sharpe (Apptd. 1948).
1940 population & (rank): 166,267 (51).
1950 population & (rank): 177,397 (54).
1940–50 population change: +6.7%.
1940 area: Land, 17.4 sq. mi.; inland water, 1.2.
Location: In central part of state, on Connecticut River.
County: Seat of Hartford Co.
Churches: Protestant, 94; Roman Catholic, 14, Jewish, 6.
City-owned parks: 29 (2,800 ac.).
Radio stations: AM, 6; FM, 2.
Television stations: None.
Assessed valuation (1950): $456,654,879.
City tax rate (1951): $38.25 per $1,000.
Net bonded debt (Mar. 31, 1951): $9,852,089.
Revenue (1951): $20,093,867.
Expenditure (1951): $19,379,783.

A Dutch trading post, established in 1623, was the beginning of Hartford. Thirteen years later, English colonists from Cambridge, Mass., started a permanent settlement and soon afterward made it the capital of the Colony of Connecticut.

The Dutch were expelled from Connecticut in 1654, but Hartford's troubles were not over. In 1687, the Governor of New York appeared at Hartford and demanded the Connecticut charter, on the grounds that he was Governor General of New England, too. The charter was hidden in a hollow oak tree for two years until King William III recognized it as valid.

By now, Hartford has become the greatest insurance center in the nation: 48 companies have their headquarters there, and their combined assets exceed $3 billion. In addition, Hartford is the home of the largest typewriter manufacturers in the world—Underwood and Royal. Its chief newspaper, *The Hartford Courant*, is the oldest in America; an earlier subscriber was George Washington, and Israel Putnam was its war correspondent during the Revolution.

Historical treasures are kept in the State Library and Supreme Court Building. Among them are a full-length portrait of Washington by Gilbert Stuart; the original charter signed by Charles II; the Brandegee collection of portraits of U. S. Justices; and the Joseph C. Mitchelson collection of coins, bills and commercial tokens of interest to students of numismatics.

HOUSTON, TEX.

Incorporated as city: 1837.
Mayor: Oscar F. Holcombe (Jan., 1953).
1940 population & (rank): 384,514 (21).
1950 population & (rank): 596,163, (14).
1940–50 population change: +55.0%.
1950 area: Land, 160 sq. mi.; inland water, 0.
Altitude: Highest, 74 ft.; lowest, sea level.
Location: In SE part of state, near Gulf of Mexico.
County: Seat of Harris Co.
Churches: Over 500.
City-owned parks: 75 (3,201 ac.).
Telephones: 300,000.
Radio sets: 350,000.
Television sets: 85,000.*
Radio stations: AM 8; FM, 3.
Television stations: 1
Assessed valuation (1950): $921,590,480: (1951 est.): $1,085,000,000.
City tax rate: $1.975 per $100.
Bonded debt (1950): $73,394,422.
Revenue (1951): $20,875,362.
Expenditure (1951): $23,995,086.

* Metropolitan area.

Sam Houston was the commander in chief of the Texas troops who fought a successful war of rebellion against domination by Mexico, which had been in possession of Texas. On April 21, 1836, Houston's men won a decisive victory in which the Mexican general, Santa Anna, was taken prisoner, and signed the treaty which launched the Republic of Texas. In September, a constitution was ratified, and Houston was elected President. The Texas Republic was recognized by the U. S. and by the major European powers.

The present city of Houston, which is the largest in Texas and in the Deep South, honors Sam Houston, who was president of the erstwhile republic. This was its first capital. Today great industrial establishments line Houston's ship channel. A leading export center, Houston leads all others in America in cotton exports. It is one of America's outstanding oil-producing and refining centers, and leads the world in the manufacture and distribution of oil-industry equipment. Among the new industries that are being developed in Houston are synthetic rubber and chemicals.

INDIANAPOLIS, IND.

Incorporated as city: 1874.
Mayor: Alex M. Clark (Dec., 1955).
1940 population & (rank): 386,972 (20).
1950 population & (rank): 427,173 (23).
1940–50 population change: +10.4%.
1940 area: Land, 53.6 sq. mi.; inland water, 0.1.
Altitude: Highest, 816 ft.; lowest, 667.
Location: In central part of state, on West Fork of White River.
County: Seat of Marion County.
Churches: 515.
City-owned parks: 32 (3,519 ac.).
Telephones: 203,644.
Radio sets: 135,780 (radio families).
Television sets: 90,000.
Radio stations: AM, 5; FM, 1.
Television stations: 1.
Assessed valuation (1949): $496,915,240.
City tax rate (1949): $4.412 per $100.
Gross debt (Dec. 31, 1948): $6,804,000.
Revenue (1948): $11,620,000.
Expenditure (1948): $12,638,000.

Indianapolis is the second largest city in the U. S. which is not on navigable water. Its size and extensive trade is based on the rich territory surrounding it. The cornfields of the region make Indianapolis the second corn market in the United States. There are also in the region large coal fields and deposits of building stone and marl.

The Indianapolis Motor Speedway, five miles from the center of the city, was built in 1909 as a proving ground for automobiles. Each Memorial Day a 500-mile race is held there. Various well-known improvements in automobiles are credited to the experience gained on the speedway. Among them are the rear-vision mirror, the balloon tire and ethyl gasoline.

The homes of two famous citizens of Indianapolis are preserved as memorials. One is the home of James Whitcomb Riley, which is preserved as it was when the famous Hoosier poet lived there. The other is the home Benjamin Harrison built in 1872. He lived there except for the period of his service as United States Senator, and as the twenty-third President of the United States. Much of the furniture is original. Both these homes are open to the public at a small fee.

JERSEY CITY, N. J.

Incorporated as city: 1855.
Mayor: John V. Kenny (May, 1953).
1940 population & (rank): 301,173 (30).
1950 population & (rank): 299,017 (37).
1940–50 population change: —0.7%.
1940 area: Land, 14.3 sq. mi.; inland water, 7.2.
Altitude: Highest, 180 ft.; lowest, sea level.
Location: In NE part of state, on Hudson River and Upper New York Bay.
County: Seat of Hudson Co.
Churches: Protestant, 96; Roman Catholic, 39; Jewish, 17; Others, 45.
Telephones: 83,876.
Radio stations: None.
Television stations: None.
Assessed valuation (1950): $484,895,741.
City tax rate (1950): $73.21 per $1,000.
Bonded debt (1950): $32,754,500.
Revenue (1950): $44,066,082.
Expenditure (1950): $41,874,654.

LOS ANGELES, CALIF.

Incorporated as city: 1850.
Mayor: Fletcher Bowron (June, 1953).
1940 population & (rank): 1,504,277 (5).
1950 population & (rank): 1,970,358 (4).
1940–50 population change: +31.0%.
1940 area: Land, 448.3 sq. mi.; inland water, 3.9.
Altitude: Highest, 2,785 ft.; lowest, sea level.
Location: In SW part of state, on Pacific Ocean.
County: Seat of Los Angeles Co.
Churches: 1,200.
City-owned parks: 104 (7,921 ac.).
Telephones: 793,758.
Radio sets: 1,056,774 (county).
Television sets: 614,064 (county).
Radio stations: AM, 12; FM, 10.
Television stations: 7.
Assessed valuation (1950): $2,480,144,170
City tax rate (1950): $1.7857 per $100.
Gross debt (Dec. 31, 1948): $208,567,000.
Revenue (1949): $291,160,821.34.
Expenditure (1949): $315,998,455.91.

In 1781, the Mexican Provincial Governor, Filipe de Neve, founded "El Pueblo de Nuestra Señora la Reina de Los Angeles"—meaning "The Village of Our Lady, the Queen of the Angels." The pueblo became the capital of a Mexican province, and it was the last place to surrender to the U. S. at the time of the American occupation in 1847.

Los Angeles now is the largest in population of any city in California, and is the largest in area of any city in the U. S. surpassing New York City by 87 square miles. Its phenomenal growth has been due to four main factors:

(1) The equable climate, which has attracted thousands of people from the Midwest.

(2) Development of the citrus-fruit industry. Around Los Angeles is a great arc of orange groves to a radial extent of thirty miles or more. Grapefruit and lemon groves are interspersed.

(3) Oil fields. Both to the north of Los Angeles, in the Bakersfield region, and to the south, in the San Pedro region, forests of oil derricks proclaim the discovery and exploitation of vast fields of underground wealth.

(4) The motion-picture industry, which is situated in Hollywood. More than two-thirds of all motion pictures are produced in the Los Angeles metropolitan district.

Exposition Park has a 7-acre sunken garden containing 15,000 rosebushes of 120 varieties. The 1932 Olympic Games were held in the coliseum there, which seats 101,671 persons. The California State Exposition Building has exhibits and dioramas showing the resources, industries and recreational facilities of California.

Adjoining Los Angeles, within a few minutes by bus or car, is Pasadena, which has the famous New Year's Day Tournament of Roses—a 2½-hour floral parade that attracts more than a million visitors. Also nearby is San Marino, which has the Henry E. Huntington Library and Art Gallery.

Well-known beaches within easy driving range of Los Angeles include: Malibu, Santa Monica, Venice, Hermosa, Redondo and Long Beach.

[For map of Los Angeles, see pp. 60-61.]

MEMPHIS, TENN.

Incorporated as city: 1849.
Mayor: S. Watkins Overton (Jan., 1956).
1940 population & (rank): 292,942 (32).
1950 population & (rank): 396,000 (26).
1940–50 population change: +35.2%.
1930 area: Land, 104.25 sq. mi.; inland water, 11.6.
Altitude: Highest, 320 ft.; lowest, 195.
Location: In SW corner of state, on Mississippi River.
County: Seat of Shelby Co.
City-owned parks: 54 (1,796.45 ac.).

Telephones: 152,417.
Radio sets: 101,000.
Television sets: 89,000.
Radio stations: AM, 6; FM, 2.
Television stations: 1.
Assessed valuation (1950): $511,200,194.27.
City tax rate (1950): $1.80 per $100.
Bonded debt (1950): $23,575,805.43.
Revenue (1950 budget): $11,076,620.26.
Expenditure (1950 budget): $11,157,670.94.

One of the country's largest inland ports, Memphis handles more than 4 million bales of cotton a year, making it the biggest single cotton market in the world. It likewise ranks first in the world as a market for hardwood lumber. It is also a leading mule market.

The first settlers of Memphis were the Chickasaw Indians, who had a village named Chisca there on the bluffs overlooking the Mississippi River. Hernando de Soto, in 1541, is said to have had his first glimpse of the Mississippi from the site of Memphis; and in the next century, Joliet and Marquette stopped there to trade with the Indians. La Salle tried to claim the region for France in 1682 and built a fort.

Actually the city was not settled until 1819, after Tennessee had been taken into the Union in 1796. One of the three founders of Memphis was Andrew Jackson. During the Civil War, the federal forces won a gunboat battle on the river at Memphis, and General Sherman was enabled to take the city. Confederate Park today contains ramparts from which Confederate soldiers defended the city against the federal gunboats.

MIAMI, FLA.

Incorporated as city: 1896.
Mayor: William Wolfarth (Nov., 1951*).
City Manager: A. D. F. Bloodworth (apptd. June 20, 1951).
1940 population & (rank): 172,172 (48).
1950 population & (rank): 249,276 (42).
1940–50 population change: +44.8%.
1950 area: Land, 34.19 sq. mi.; inland water, 18.45.
Altitude: Average, 10 ft.
Location: In SE part of state, on Biscayne Bay.
County: Seat of Dade Co.
Churches: 235.
City-owned parks: 48 (613 ac.).
Telephones: 196,000.
Radio sets: 150,000.
Television sets: 75,000.
Radio stations: AM, 6; FM, 4.
Television stations: 1.
Assessed valuation (1951–52): $547,928,260.
City tax rate (1951–52): $21.54 per $1,000.
Bonded debt (1951–52): $19,748,000.
Revenue (1950–51 est. budget): $16,607,518.
Expenditure (1950–51 est. budget): $16,216,444.

* New election held Nov. 27, 1951.

For the variety and quantity of its sports events, Miami can lay claim to being the most athletic city in the nation. In the matter of fishing, for example, there is a winter tournament that begins about the middle of January and runs through April; then comes a summer tournament that runs from July to early September. There are jai-alai games nightly from Christmas into April. There is greyhound racing on three tracks from December into March.

In case these events are not enough for the thousands of tourists who flock to Miami, there is the Orange Bowl football game on New Year's Day—followed by an open golf tournament—followed by a dinghy regatta—followed by a general sailing regatta in March. And there are horse races at Hialeah Park and Tropical Park from mid-December until April. Hialeah is noted as one of the most beautiful horse-racing tracks in the world, with its cocoanut palms, its tropical gardens, and the largest flock of flamingoes in Florida.

Miami is the southernmost large city on the U. S. mainland. To the south, a unique overseas highway goes down the Florida Keys to Key West, connecting the islands by bridges. To the west, the Tamiami Trail leads across the Everglades to Tampa.

MILWAUKEE, WIS.

Incorporated as city: 1846.
Mayor: Frank P. Zeidler (April, 1952).
1940 population & (rank): 587,472 (13).
1950 population & (rank): 637,392 (13).
1940–50 population change: +8.5%.
1950 area: Land, 49.75 sq. mi.; inland water, 0.
Altitude: Highest, 740 ft.; lowest, 581 ft.
Location: In SE part of state, on Lake Michigan.
County: Seat of Milwaukee Co.
Churches: 374.
City-owned parks: 65 (1,612 ac.).
Telephones: 312,400.
Radio sets: 190,279.
Television sets: 90,000.
Radio stations: AM, 7; FM, 2.
Television stations: 1.
Assessed valuation (1950): $1,214,036,245.
City tax rate (1950): $30.83 per $1,000.
Gross debt (Dec. 31, 1950): $9,057,500.
Revenue (1950): $65,385,180.
Expenditure (1951 budget): $71,040,613.

French missionaries visited the site of Milwaukee in the seventeenth century, but it was not until 1795 that Jacques Vieau established a trading post there. The first permanent white settler, Vieau's son-in-law, Solomon Juneau, made his home there in 1818.

Famous for its beer, Milwaukee has the Pabst, Schlitz and Blatz breweries, all of which are open to visitors by appointment. In addition the city is a substantial manufacturing center, producing machinery, chemicals, food and leather products, etc.

A Wisconsin State Fair, held annually in August, includes a state art exhibit and automobile and horse racing. The Milwaukee Auditorium is one of the largest exposition buildings in the country, with eight separate auditoriums under one roof, the smallest seating 300 and the largest 10,000.

MINNEAPOLIS, MINN.

Incorporated as city: 1867.
Mayor: Eric G. Hoyer (July, 1953).
1940 population & (rank): 492,370 (16).
1950 population & (rank): 521,718 (17).

(Minneapolis continued on page 62)


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TO VENTURA
Canoga Park
SHERMAN CANYON BLVD
Reseda
VALLEY
Woodland Hills
Tarzana
Calabasas
Agoura
VENTURA
MULHOLLAND
Encino
Sherman Oaks
Studio City
Universal City
Roscoe
Verdugo
Burbank
Magnolia Pk
Van Nuys
N. Hollywood
Cornell
SEE DETAIL MAP BELOW
SANTA MONICA MTS.
Topanga
Fernwood
MALIBU BOWL
OCEANIC STUDIO
Pacific Palisades
Brentwood
Hollywood
W Hollywood
Beverly Hills
Westwood Village
W Los Angeles
Palms
Culver City
Malibu Beach
CORAL BEACH
LAS FLORES BEACH
TOPANGA BEACH
CASTLE ROCK BEACH
ESCONDIDO BEACH
LIME POINT
Santa Monica
Ocean Park
Venice
Inglewood
Lennox
Hawthorne
El Segundo
Playa del Rey
Manhattan Beach
Hermosa Beach
Redondo Beach
Torrance
Lomita
Harbor City
Palos Verdes Estates
Walteria
Wilmington
PALOS VERDES (SAN PEDRO HILLS)
ROCKY POINT
LONG POINT
PT FERMIN
San Pedro
Lawndale
Athens
Gardena
Moneta
El Nido
SCALE OF MILES
Santa Monica Bay
COLUMBIA STUDIO
OLIVE AVE
River
WARNER BROS. FIRST NAT'L STUDIO
Los Angeles
UNIVERSAL STUDIO
Universal City
BARHAM BLVD
CAHUENGA PEAK EL. 1821
CAHUENGA BLVD
Griffith Park
MT. HOLLYWOOD EL. 1650
TUNNEL
GREEK THEATRE
PLANETARIUM
PILGRIMAGE THEATRE
HOLLYWOOD BOWL
HIGHLAND AVE
YUCCA ST
Hollywood
LOIS FELIZ
HOLLYWOOD BLVD
SUNSET BLVD
SANTA MONICA BLVD
MELROSE AVE
BEVERLY BLVD
WILSHIRE BLVD
CLYMPIC BLVD
PICO BLVD
N.B.C.
C.B.S.
CHAPLIN STUDIO
20TH CENT FOX STUDIO
GOLDWYN & UNITED ARTISTS STUDIO
GENERAL STUDIO
R.K.O. STUDIO
PARAMOUNT STUDIO
ENTERPRISE PRODUCTIONS INC
GILMORE STADIUM & FIELD
PAN PACIFIC AUDITORIUM
HYPERION AVE
SUNSET
HOOVER ST
VINE ST
FAIRFAX AVE
LA BREA AVE
ROSSMORE AVE
MARIPOSA AVE
VERMONT AVE
WESTERN AVE
HOOVER ST
Los Angeles
TEMPLE BLVD
BEVERLY BLVD
GLENDALE BLVD
Elysian Park
Lafayette Pk
McArthur Pk
SPRING ST
BROADWAY
Los Angeles River
CHINATOWN
UNION STATION
MACY ST
MISSION RD
ALISO ST
1ST ST
ALAMEDA ST
MAIN ST
LOS ANGELES ST
SAN PEDRO ST
CENTRAL AVE
GRAND AVE
HILL ST
OLIVE ST
FIGUEROA ST
HARBOR FWY
SANTA ANA FWY
HOLLYWOOD FWY
PASADENA FWY
SAN BERNARDINO FWY
SAN DIEGO FWY
1 Indicates Hotels See List To Right
DOWNTOWN LOS ANGELES & HOLLYWOOD
SCALE OF MILES
1945
AUTO. CLUB OF SO. CALIF.


Key To Hotels Shown On Downtown Map
1 – Hotel Alexandria
2 – Arcady Hotel
3 – Biltmore Hotel
4 – Chapman Park Hotel
5 – Commodore Hotel
6 – Figueroa Hotel
7 – Gaylord Hotel
8 – Hayward Hotel
9 – Hollywood Roosevelt
10 – Lido Apartment Hotel
11 – Hotel Mariposa
12 – Mayan Hotel
13 – Mayfair Hotel
14 – Olympic Hotel
15 – Park Wilshire Hotel
16 – Rosslyn Hotel
17 – Savoy Hotel
18 – Stillwell Hotel
19 – Teris Hotel
LOS ANGELES
CALIF.
AND VICINITY
Pacific
Ocean
GABRIEL MTS.
NT. WILSON OBSERVATORY EL. 5710
SANTA ANITA RACE TRACK
La Canada
Altadena
Flintridge
Sierra Madre
Monrovia
Glendora
Azusa
Duarte
Arcadia
Pasadena
Glendale
Eagle Rock
Highland Park
South Pasadena
San Marino
E. Pasadena
W. Arcadia
Temple City
San Dimas
La Verne
Claremont
Alhambra
San Gabriel
Rosemead
El Monte
Irwindale
Baldwin Park
Covina
West Covina
Spadra
Pomona
Monterey Park
Montebello
Puente
Walnut
Vernon
Maywood
Pico
Whittier
Bell
Cudahy
Huntington Park
Walnut Park
Southgate
Santa Fe Springs
Downey
Lynwood
Compton
Norwalk
La Habra
Brea
Olinda
Yorba Linda
Placentia
Fullerton
Bellflower
Buena Park
Atwood
North Long Beach
Artesia
Brookhurst
Olive
Dominguez
Dolores
Lakewood Village
Cypress
Anaheim
Villa Park
Irvine Park
Los Alamitos
Stanton
Orange
El Modeno
Signal Hill
Garden Grove
Long Beach
Belmont Shores
Naples
Westminster
Tustin
Seal Beach
Surfside
Sunset Beach
Smeltzer
Midway City
Santa Ana
Winters burg
Ocean View
Gloryetta
Talbert
La Bolsa
Irvine
Thurin
Huntington Beach
Costa Mesa
Newport Beach
Balboa
Corona del Mar
Laguna Beach
Los Angeles Harbor
TO SAN BERNARDINO
TO RIVERSIDE
TO CORONA
TO TRABUCO CANYON
TO SAN DIEGO
TO LONG BEACH
TO WILMINGTON
TO HARBOR LANDS
GLENDORA ROAD
FOOTHILL BLVD.
SIERRA MADRE AVE
CYPRESS AVE
HOLT AVE
5TH AVE
GAREY AVE
SAN JOSE HILLS
PUENTE HILLS
CHINO HILLS
LOMA RIDGE
SAN JOAQUIN HILLS
CARBON CANYON ROAD
ANAHEIM TELEGRAPH ROAD
WHITTIER BLVD
ROSEMEAD BLVD
NORWALK BLVD
ROSECRANS AVE
FIRESTONE BLVD
ROAD WELL RD
LEFFING
IMPERIAL HWY
CENTER ST
ARTESIA ST
ORANGETHORPE
LINCOLN AVE
CARSON ST
ANAHEIM ST
7TH ST
WEST MINSTER AVE
BOLSA AVE
GARDEN GROVE BLVD
KATELLA AVE
BELL FLOWER ST
SANTA ANA CANYON RD
CHAPMAN AVE
TUSTIN ST
MAIN ST
GRAND AVE
HARBOR BLVD
NEWPORT BLVD
PCH
ALT 101
SAN DIEGO FWY
LAGUNA NIGUEL RD
ORANGE FWY
RIVER AVE
ATLANTIC AVE
LONG BEACH FWY
ARROYO
VALLEY
HUNTINGTON DR
FOOTHILL BLVD
COLO BLVD
ROSE BOWL
FAIR OAKS
SAN BERNARDINO FWY
POMONA FWY
GLENDORA MTN RD
AZUSA AVE
CITRUS AVE
BONITA AVE
ARROW HWY
GARVEY AVE
VALLEY BLVD
ATLANTIC BLVD
PUENTE AVE
GLENDORA MTN RD
WORKMAN MILL RD
TURNBULL CANYON RD
HACIENDA BLVD
POMONA BLVD
BREA OLINDA
LA HABRA RD
ROSE CRANS AV
STAGE RD
FIRESTONE BLVD
COMMON WEATH AVE
CHAPMAN AVE
YORBA
CENTRAL AVE
CENTRALIA
LINCOLN AVE
KATELLA AVE
GARDEN GROVE BLVD
WESTMINSTER AVE
BOLSA AVE
BOLSA CHICA
HAMPSHIRE AVE
SANTA ANA HARBOR
NEWPORT BLVD
MAIN ST
GRAND AVE
TUSTIN ST
CHAPMAN AVE
IRVINE
LAGUNA NIGUEL RD
SAN JOAQUIN HILLS
LAGUNA BEACH
TO SAN DIEGO

1940–50 population change: +6.0%.
1940 area: Land, 53.8 sq. mi.; inland water, 5.0.
Altitude: Highest, 945 ft.; lowest, 695.
Location: In SE central part of state, on Mississippi River.
County: Seat of Hennepin Co.
Churches: 454.
City-owned parks: 143.
Telephones: 275,242.
Radio sets: 400,000.
Television sets: 80,000.
Radio stations: AM, 6; FM, 2.
Television stations: 2.
Assessed valuation (1951): $308,000,000.
City tax rate (1951): $1.41 per $100.
Bonded debt (1951): $51,000,000.
Revenue (1951): $48,000,000.
Expenditure (1951): $52,000,000.

Lieutenant Zebulon Pike made a treaty with the Sioux Indians in 1805-06 by which they ceded to the whites land including the Falls of St. Anthony and the site of Minneapolis. Fort Snelling was built in 1819-20, and in 1823 the government built a lumber and flour mill. Today Minneapolis is one of the outstanding flour-milling centers. Serving a vast agricultural region, the city is the largest distributing center for tractors and farm implements.

Not far from the city on the Mississippi River is U. S. Lock and Dam No. 1, a few miles above which is the head of navigation. From there to St. Louis, a river stretch of 659 miles, 26 dams insure a 9-foot channel for navigation. Minnehaha Park along the Mississippi contains Minnehaha Falls, made famous by Longfellow's poem, *The Song of Hiawatha*. Above the falls is a statue of Hiawatha and Minnehaha.

Minneapolis has 22 lakes within its park system, offering fishing, bathing and sailboating in the summer, iceboating and skating in the winter. Twelve miles west of the city is Lake Minnetonka, which has 110 miles of shore line.

Across the Mississippi is Minneapolis' "twin city," St. Paul.

NEWARK, N. J.

Incorporated as city: 1836.
Mayor: Ralph A. Villani (May, 1953).
1940 population & (rank): 429,760 (18).
1950 population & (rank): 438,776 (21).
1940–50 population change: +2.1%.
1940 area: Land, 23.6 sq. mi.; inland water, 3.2.
Altitude: Highest, 225 ft.; lowest, sea level.
Location: In NE part of state, on Passaic River and Newark Bay.
County: Seat of Essex Co.
Churches: Protestant, 159; Roman Catholic, 41; Jewish, 32; others, 57.
City-owned parks: 40 (34.24 ac.).
County-governed parks in city: 7 (749.35 ac.).
Telephones: 155,842.
Radio stations: AM, 4; FM, 3.
Television stations: 1.
Assessed valuation (1951): $682,567,322.
City tax rate (1951): $6.92 per $100.
Net bonded debt (1951): $43,966,775.56.
Revenue (1950): $57,446 652.76.
Expenditure (1950): $55,028,447.86.

NEW ORLEANS, LA.

Incorporated as city: 1805.
Mayor: De Lesseps S. Morrison (May, 1954).
1940 population & (rank): 494,537 (15).
1950 population & (rank): 570,445 (16).
1940–50 population change: +15.3%.
1940 area: Land, 199.4 sq. mi.; inland water, 164.1.
Altitude: Highest, 15 ft.; lowest, 4 below sea level.
Location: In SE part of state, between Mississippi River and Lake Pontchartrain.
Parish: Seat of Orleans Parish.
Churches: Over 600.
City-owned parks: 69 (1,700 ac.).
Telephones: 210,412.
Radio sets: 192,600.
Television sets: 50,000.
Radio stations: AM, 8; FM, 5.
Television stations: 1.
Assessed valuation (1950): $602,309,259.
City tax rate (1950): $3.15 per $100.
Bonded debt (1950): $47,812,000.
Revenue (1950, budget): $16,800,000.
Expenditure (1950, budget): $16,800,000.

One of the few cities of the nation that have been under three flags, New Orleans has belonged to Spain, France and the U. S. The French founded it in 1718 and named it in honor of the Duke of Orleans.

In 1762, France ceded the city and the territory to Spain. In 1800, the territory was returned to France, but government authorities did not take over until 1803, only 20 days before the region became part of the U. S. in the Louisiana Purchase.

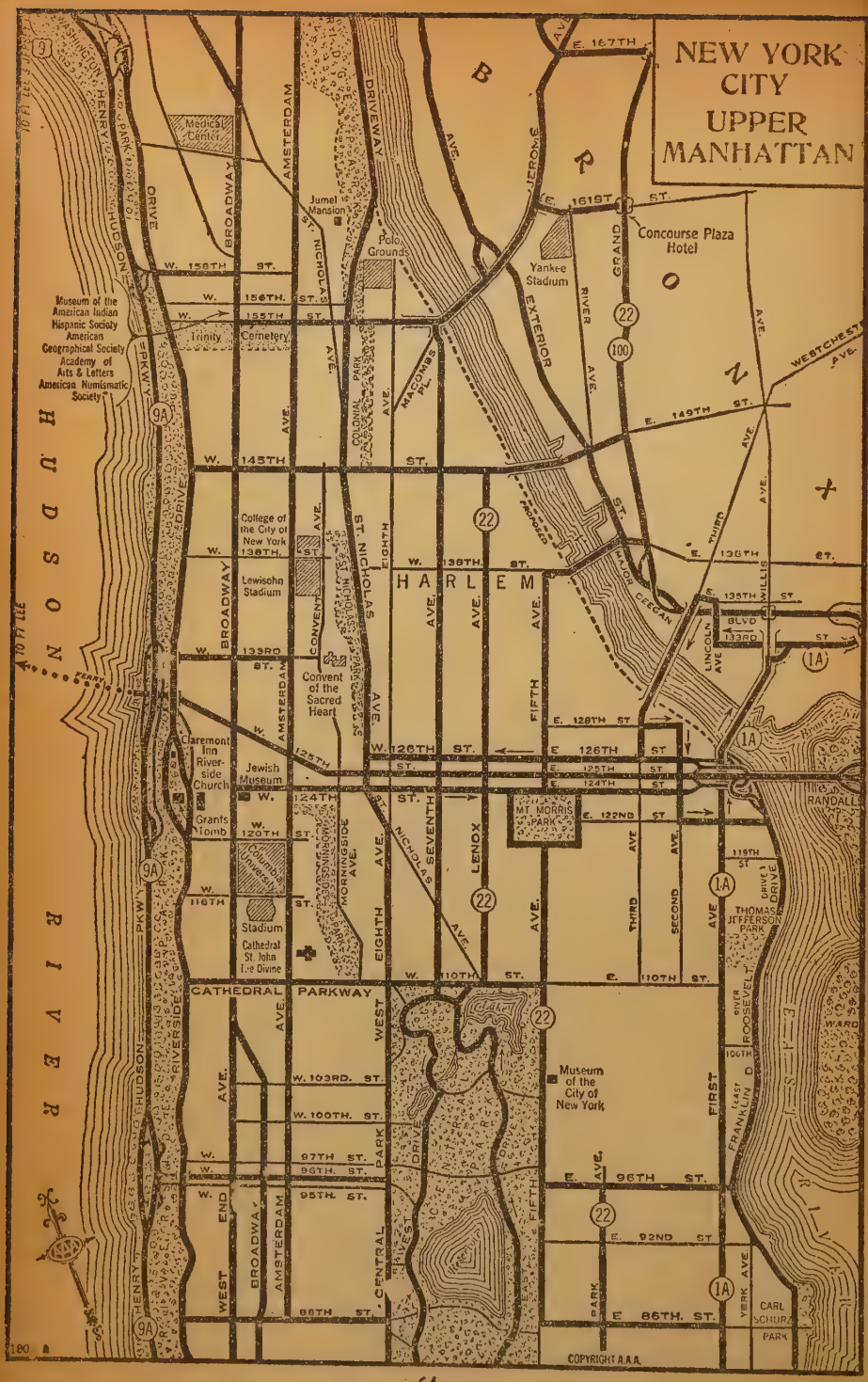
As a memento of the old days, New Orleans has a French Quarter, or Vieux Carré, which has fascination for tourists and for gourmets. The narrow streets are overhung with the iron-trellised balconies of quaint old dwellings and shops. The restaurants are celebrated for their good food and unusual dishes.

Six miles below the city is Chalmette National Historical Park, which marks the battlefield on which Andrew Jackson defended New Orleans against the British in 1815. The British suffered 1,971 casualties, while the Americans suffered only 13. It was the last battle fought between the U. S. and Great Britain, the peace treaty having been signed at Ghent 15 days before the battle. The news had not yet reached New Orleans.

One of the city's historic buildings is the Cabildo, dating back to 1795, which was the headquarters of the Spanish governor. It later was the scene of the transfer of Louisiana from France to the U. S. Now it is a museum with historical and art displays.

The most spectacular and gayest festival in the U. S. is held in New Orleans—the Mardi Gras, which involves a week of carnival and reaches its climax on Shrove Tuesday, the day before the beginning of Lent. On the more serious side, the city is one of the great ports of the U. S., with 23 miles of developed water frontage. It is the natural gateway for trade to Latin America.


NEW YORK CITY
LOWER MANHATTAN
TIMES SQUARE AREA
QUEENS
BROOKLYN
COPYRIGHT A.A.A.
To Jersey City
To Hoboken
To Staten Island
To Coney Island
HOLLAND TUNNEL
LINCOLN TUNNEL
QUEENS-MIDTOWN TUNNEL
QUEENSBORO BRIDGE
WILLIAMSBURG BRIDGE
BROOKLYN BRIDGE
MANHATTAN BRIDGE
Museum of French Art
St. Moritz Hotel
Savoy Plaza Hotel
Barbizon Plaza Hotel
Ritz Tower
Rockefeller Center
Waldorf Astoria
Hotel Wentworth
The Roosevelt
Biltmore Hotel
Grand Central Term.
Chrysler Bldg.
Public Library
Hotel Sheraton
71st Regiment Armory
Hotel Mc Alpin
Empire State Bldg.
Hotel New Yorker
Downtown Div. of N.Y. Club
Hotel Martinique
Vanderbilt Hotel
Little Church around the Corner
Prince George Hotel
69th Regiment Armory
George Washington Hotel
Madison Square
Metro Life Ins. Co.
Kenmore Hall
Gramercy Park
Tammy Hall
Stuyvesant Square
Roosevelt House
Union Square
Grace Church
St. Marks Church
Whitney Museum of American Art
Cooper Union
Wash. Square
New York Univ Washington Square Village
Greenwich Village Garage
Tompkins Square
Hamilton Fish Park
Hudson Park
Police Hdqtrs.
The Ghetto
N.Y. State Office Bldg.
Court House
Municipal Bldg.
Chinatown
City Hall
Woolworth Bldg.
St. Pauls Chapel
Old John St. Church
Fulton Market
U.S. Sub Treasury
Trinity Church
N.Y. Stock Exchange
Fraunces Tavern
Battery
Custom House
Great Northern Hotel
Park Central Hotel
Hotel Wellington
Museum of Modern Art
Madison Square Garden
Hotel Taft
Victoria Hotel
St. Patricks Cathedral
Roxy Theatre
Rockefeller Center
Plymouth Hotel
President Hotel
Hotel Edison
Hotel Piccadilly
Hotel Bristol
Hotel Paramount
Hotel Astor
Times Square
Bar Assn. Building
Times Building
Hotel Empire
Hotel Henry Hudson
Hotel De Witt Clinton
Hotel Statler
Hotel Pennsylvania
Post Office
Hotel Gov. Clinton
Chelsea Park
Port of New York Authority
Metro Opera Hse
Public Library
Bellevue Hospital
N.Y. Univ.
Police Hdqtrs.
Welfare
House of Correction
Franklin D. Roosevelt East River Park
Hudson River Park
Chelsea Park
Tompkins Square
Union Square
Madison Square
Washington Square
Times Square
Columbus Circle
Central Park
Lincoln Tunnel
Holland Tunnel
Queens-Midtown Tunnel
Queensboro Bridge
Williamsburg Bridge
Brooklyn Bridge
Manhattan Bridge
Plaza
Widdagh St
Liberty St
Fulton St
Henry St
Clinton St
Commercial St
Vernon Blvd
45th Ave
47th Ave
Van Alst Ave
Jackson Ave
Skillman Ave
Queens Blvd
Broadway
Fifth Ave
Park Ave
Madison Ave
Lexington Ave
First Ave
Second Ave
Third Ave
Fourth Ave
Sixth Ave
Seventh Ave
Eighth Ave
Ninth Ave
Tenth Ave
Eleventh Ave
Amsterdam Ave
Columbus Ave
West Side Highway
Henry Hudson Parkway
Franklin D. Roosevelt Drive
Hudson River
East River
Houston St
Canal St
Grand St
Delancey St
Bowery
Lafayette St
Christopher St
Greenwich Ave
Spring St
Broome St
Kenmare St
Schiff Parkway
Montgomery St
Pike St
Division St
Chambers St
Barclay St
Vesey St
Liberty St
Cortlandt St
Rector St
Wall St
Pine St
Broad St
Whitehall St
Battery
Exit
Entrance
Ferry
Tunnel
Bridge
Express
Local
Subway
Bus
Parkway
Drive
Boulevard
Avenue
Street
Place
Square
Park
Hotel
Garage
Building
Church
Museum
Theatre
Tavern
Market
Ghetto
Chinatown
Brooklyn
Manhattan
Queens
Bronx
Staten Island
Jersey City
Hoboken
1804


NEW YORK CITY
UPPER MANHATTAN
HUDSON RIVER
HARLEM
BRONX
EAST RIVER
Medical Center
Jumel Mansion
Polo Grounds
Yankee Stadium
Concourse Plaza Hotel
Museum of the American Indian Hispanic Society American Geographical Society Academy of Arts & Letters American Numismatic Society
Trinity Cemetery
College of the City of New York
Lewisohn Stadium
Convent of the Sacred Heart
Claremont Inn Riverside Church
Jewish Museum
Grants Tomb
Columbia University
Stadium
Cathedral St. John the Divine
Mt. Morris Park
Museum of the City of New York
Thomas Jefferson Park
Carl Schurz Park
Randall's Island
Henry Hudson Parkway
Riverside Drive
Broadway
Amsterdam Ave.
Eighth Ave.
Lenox Ave.
Fifth Ave.
Third Ave.
Second Ave.
First Ave.
Madison Ave.
Park Ave.
Lincoln Blvd
Grand Concourse
Jerome Ave.
Macombs Dam Bridge
Cathedral Parkway
West End Ave.
Central Park West
Franklin D. Roosevelt East River Drive
E. 167th St.
E. 161st St.
E. 149th St.
E. 138th St.
E. 135th St.
E. 125th St.
E. 124th St.
E. 122nd St.
E. 119th St.
E. 110th St.
E. 96th St.
E. 92nd St.
E. 86th St.
W. 155th St.
W. 145th St.
W. 138th St.
W. 133rd St.
W. 125th St.
W. 124th St.
W. 120th St.
W. 116th St.
W. 110th St.
W. 103rd St.
W. 100th St.
97th St.
96th St.
95th St.
86th St.
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NEW YORK, N. Y.

Chartered as "Greater New York": 1898.
Mayor: Vincent R. Impellitteri (Dec., 1953).
Borough Presidents: Bronx, James J. Lyons; Brooklyn, John Cashmore; Manhattan, Robert F. Wagner, Jr.; Queens, James A. Lundy; Richmond, Cornelius A. Hall.
1940 population & (rank): 7,454,995 (1).
1950 population & (rank): 7,891,957 (1).
1940–50 population change: +5.9%.
1940 area: Land, 299.0 sq. mi.; inland water, 66.4 sq. mi.
Altitude: Highest, 430 ft.; lowest, sea level.
Counties: Consists of 5 counties: Bronx, Kings (Brooklyn), New York (Manhattan), Queens, Richmond (Staten Island).
Location: SE part of state, at mouth of Hudson River.
Churches: Protestant, 1,418; Jewish, 1,330; Roman Catholic, 525.
City-owned parks: 882 (26,522 ac.).
Telephones: 2,365,000.
Families with radios: 2,258,470.
Television sets: 1,475,000.
Radio stations: AM, 25; FM, 23.
Television stations: 6.
Assessed valuation (1951): $18,776,760,946.
City tax rate (1951): $3.08 per $100.
Bonded debt (1951): $3,240,545,785.46.
Revenue (1951): $1,251,456,083.66.
Expenditure (1951): $1,253,373,347.76.

In 1609, Henry Hudson, who worked for the Dutch East India Company, sailed up the river that now bears his name and went as far as Albany. Five years later, a permanent settlement was established at what is now New York, but it was originally called New Amsterdam by the Dutch governors. One of them, Peter Minuit, was said to have bought Manhattan Island from the Indians for $24 worth of beads, buttons and trinkets. In 1664, Great Britain's Duke of York sent a fleet which quietly seized the settlement from the Dutch, without bloodshed, and re-christened the colony in honor of the Duke.

Control of New York passed to the young U. S. at the end of the Revolutionary War, and George Washington was inaugurated President in New York's old City Hall. Congress met in New York from 1785 to 1790.

Today New York is the most populous and wealthy city in the U. S. Much of this growth and prosperity is due to New York Harbor, which is one of the finest, and perhaps the busiest, in the world. The port clears more than 5,000 vessels a year and ships almost half of the entire trade of the U. S. For the visitor, perhaps the best view of New York Harbor is from the top of the Statue of Liberty, which is reached by ferry boats running hourly from the Battery, the southern tip of Manhattan. The statue, presented to the U. S. by France in 1885, is the tallest of modern times—152 feet high on a pedestal 151 feet high. An elevator runs to the balcony level, and a spiral stairway leads to the observation platform. Another way to see the harbor and New York's skyline is to take the 40-mile boat trip around Manhattan. Boats leave from the Battery every day at 10:30 a.m. and 2:30 p.m.

In lower Manhattan, not far from the Battery, is Wall Street, the financial center of the nation. It was so named from the wall constructed nearly 300 years ago by the Dutch burghers to protect themselves against Indian raids. The New York Stock Exchange admits visitors. By way of contrast, New York's Chinatown, within walking distance of Wall Street to the north, has intriguing things to buy and restaurants with delicious things to eat.

Midtown Manhattan has Broadway, otherwise known as the "Main Stem," or "The Great White Way." More stage plays and motion-picture theaters are crowded in that area than in any comparable area in the world. Also night clubs.

Among the most noteworthy buildings, or clusters of buildings, in Midtown Manhattan are:

(1) The Empire State Building, the world's tallest structure, 1,250 feet high. Some half million tourists visit the building every year and shoot up in elevators to the observation tower on the 102d floor.

(2) Rockefeller Center—also known as Radio City. It occupies 12 acres and includes 15 buildings. The studios of the National Broadcasting Company can be inspected in tours that start every twenty minutes.

(3) United Nations Headquarters, which is in the process of construction on the East River at 42d Street.

The many museums of New York City are listed in a separate section (*See* Museums in the index). The most celebrated is the Metropolitan Museum of Art, one of the world's most famous. On the outskirts of New York City are two of the largest airfields in the world: La Guardia Field and Idlewild. La Guardia Field covers an area of 558 acres, and has observation decks from which one can watch the arrival and departure of domestic and overseas planes, 24 hours a day.

OKLAHOMA CITY, OKLA.

Incorporated as city: 1890.
Mayor: Allen Street (Apr., 1955).
City Manager: Ross Taylor.
1940 population & (rank): 204,424 (42).
1950 population & (rank): 243,504 (45).
1940–50 population change: +19.1%.
1951 area: Land, 53.71 sq. mi.; inland water, 0.
Altitude: Highest, 1,100 ft.; lowest, 1,070.
Location: In central part of state, on North Canadian River.
County: Seat of Oklahoma Co.
Churches: Protestant, about 280; Roman Catholic, 13; Jewish, 2; others, 5.
City-owned parks: 67 (3,005.74 ac.).
Telephones: 126 044.
Radio stations: AM, 8; FM, 1.
Television stations: 1.
Assessed valuation (1950–51): $199,015,454.
City Tax rate (1950): $12.782 per $1,000.
Bonded debt (1950): $18,918,000.
Revenue (1950): $8,784,220.64.
Expenditure (1950): $7,935,758.79.

More than two thousand oil wells are located within the limits of Oklahoma City or close by, some of them more than a mile deep. The quest for oil knew no forbidden territory: there are derricks in residential

districts and even on the grounds of the state capitol.

Oklahoma City sprang into being almost overnight. In 1889, the government threw open this territory for settlement, and there was a classic rush across the line to stake claims. Within a short time, Oklahoma City was a bustling town of 10,000.

The city now ranks as one of the dozen primary livestock markets in the country. Packing plants and flour mills are among the 600 manufacturing concerns. The city is also an important aviation center, with Tinker Field as an Air Force materiel depot. There are six privately owned airports in the area surrounding Oklahoma City.

OMAHA, NEBR.

Incorporated as city: 1857.
Mayor: Glenn Cunningham (May, 1954).
1940 population & (rank): 223,844 (39).
1950 population & (rank): 251,117 (40).
1940–50 population change: +12.2%.
1940 area: Land, 38.9 sq. mi.; inland water, 0.4.
Altitude: Highest, 1,245 ft.; lowest, 970.
Location: On Missouri River near its junction with Platte River.
County: Seat of Douglas Co.
Churches: Protestant, 179; Roman Catholic, 37; Jewish, 7; Orthodox, 3; others, 27.
City-owned parks: 50 (3,400 ac.).
Telephones: 118,600.
Radio sets: 79,200.
Television sets: 40,000.
Radio stations: AM, 5; FM, 1 (transit radio).
Television stations: 2.
Assessed valuation (1950): $348,000,000.
City tax rate (1952): $13.55 per $1,000 (without school district).
Bonded debt (1950): $11,663,500.
Revenue (1950): $12,917,000.
Expenditure (1950): 10,616,000.

PHILADELPHIA, PA.

First charter as city: 1701.
Mayor: Joseph Sill Clark, Jr. (Jan. 1956).
1940 population & (rank): 1,931,334 (3).
1950 population & (rank): 2,071,605 (3).
1940–50 population change: +7.3%.
1940 area: Land, 127.2 sq. mi.; inland water, 7.8.
Altitude: Highest, 440 ft.; lowest, sea level.
Location: In SE part of state, at junction of Schuylkill and Delaware Rivers.
County: Seat of Philadelphia Co.
City-owned parks: 35 (7,499.19 ac.).
Radio stations: AM, 10; FM, 8.
Television stations: 3.
Assessed valuation (1951): $3,133,900,000.
City tax rate (1950): $2.975 per $100.
Net bonded debt (1950): $423,934,624.
Revenue (1950): $126,026,097.
Expenditure (1950): $123,116,935.

Philadelphia, the "City of Brotherly Love," was settled in 1681 by Capt. William Markham, who, with a small band of colonists, was sent out by William Penn. Penn arrived the following year, and it was he who laid out the city and gave it its name. By 1685, 90 ships had come to the new settlement, bringing over 7,000 people.

In the period before the American Revolution, the city out-stripped all others in the colonies in education, arts, science, industry and commerce. In 1774–76, the First and Second Continental Congresses met in Philadelphia; and from 1781–83, the city was the capital of the U. S. under the Articles of Confederation. In 1790, it became the nation's capital under the Constitution and remained so until the seat of the federal government moved to Washington in 1800.

Today, Philadelphia is the third largest city in the U. S. and one of the great industrial cities of the world, turning out such products as textiles, steel, radios, ships, street cars and many others. Over half the surgical instruments manufactured in the U. S. come from Philadelphia; and the Baldwin Locomotive Plant, largest in the world, is at Eddystone, on the outskirts of the city.

Philadelphia abounds in landmarks of early American history, including Independence Hall, where the famous Liberty Bell is located, and adjacent Congress Hall, where George Washington was inaugurated for his second term.

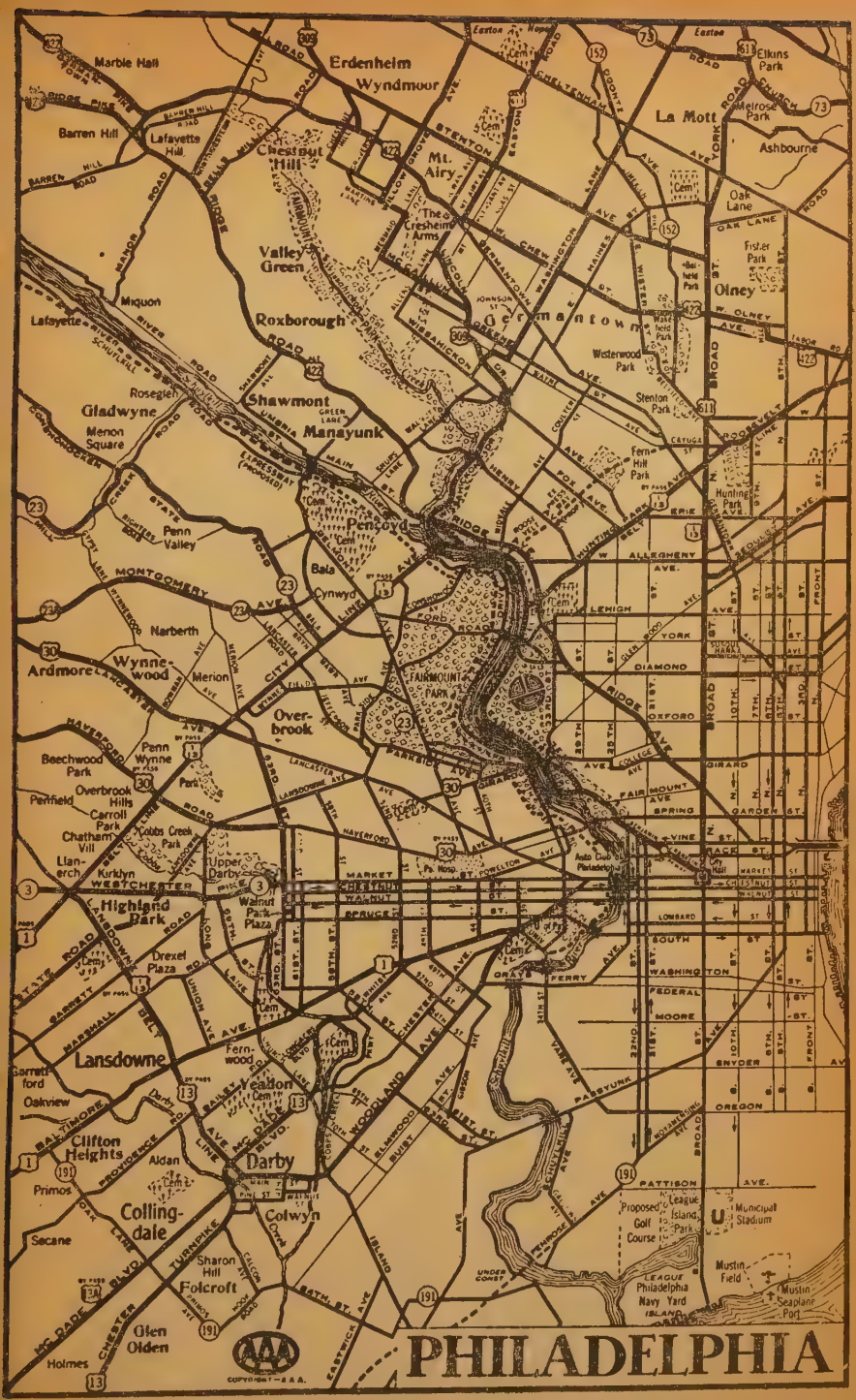
Among more recent structures is the City Hall, which is 547 feet in height and is surmounted by a 37-foot bronze statue of William Penn created by Alexander Milne Calder. The building is the tallest in the city and, with its courtyard, occupies an area of 4½ acres.

Philadelphia's U. S. Mint, established in 1792, was the first in the country.

PITTSBURGH, PA.

Incorporated as city: 1816.
Mayor: David L. Lawrence (Jan., 1954).
1940 population & (rank): 671,659 (10).
1950 population & (rank): 676,806 (12).
1940–50 population change: +0.8%.
1950 area: Land, 56.3 sq. mi.; inland water, 3.0.
Altitude: Highest, 1,240 ft.; lowest, 715.
Location: In SW part of state, at junction of Allegheny and Monongahela Rivers to form Ohio River.
County: Seat of Allegheny Co.
Churches: Protestant, 778; Roman Catholic, 204; Jewish, 8.
City-owned parks: 20; 7 parklets (1,970 ac.).
Telephones: 404,296.
Radio sets: 675,000.
Television sets: 312,000.
Radio stations: AM, 7; FM, 7.
Television stations: 1.
Assessed valuation (1950): Land, $412,528,625; buildings, $605,357,129.
City tax rate (1950): Land, $28 per $1,000; buildings, $14 per $1,000.
Bonded debt (1950): $47,877,700.
Revenue (1950): $33,380,444.51.
Expenditure (1950): $34,006,876.43.

No other city in the world produces so much iron and steel as does Pittsburgh. The territory within 30 miles of the courthouse produces one-fifth of the nation's pig iron, one-fourth of its steel and one-fifth of its glass. No other city in the world pro-


PHILADELPHIA
Marble Hall
Erdenheim
Wyndmoor
Elkins Park
La Mott
Melrose Park
Ashbourne
Barren Hill
Lafayette Hill
Chestnut Hill
Mt. Airy
Oak Lane
Valley Green
Olney
Roxborough
Germantown
Miquon
Lafayette
Westerwood Park
Rosegill
Shawmont
Gladwyne
Manayunk
Stenton Park
Menon Square
Fern Hill Park
Penn Valley
Penrose
Hunting Park
Bala
Cynwyd
Narberth
Wynne-wood
Ardmore
Merion
Over-brook
Fairmount Park
Beechwood Park
Penn Wynne
Overbrook Hills
Penfield
Carroll Park
Chatham Vill
Cobbs Creek Park
Llan-erch
Kirklyn
Upper Darby
Highland Park
Walnut Park Plaza
Drexel Plaza
Lansdowne
Fern-wood
Garrett-ford
Oakview
Yeadon
Clifton Heights
Aldan
Darby
Primos
Colling-dale
Colwyn
Secane
Sharon Hill
Folcroft
Glen Olden
Holmes
Auto Club Philadelphia
Proposed League Island Park Golf Course
Municipal Stadium
Mustin Field
League Island Navy Yard
Philadelphia Seaplane Port
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duces so much aluminum. As though this were not enough, Pittsburgh has the largest cork-manufacturing plant and the largest pickling and preserving business in the world.

A detachment of troops from Virginia put a fort on the site of present Pittsburgh in 1754, considering it a strategic spot. Following the original Virginia settlers, the French seized the spot; and in 1758, the British took it away from the French. The British built a new fort and named it after William Pitt, Prime Minister of England.

Pittsburgh's largest park is Schenley Park, of 422 acres, which is the home of the Carnegie Institute. The Department of Fine Arts of the Carnegie Institute holds a yearly international exhibition of paintings, which is one of the most widely known in the U. S. The Carnegie Museum contains some five million objects pertaining to natural sciences, ethnology and the useful arts.

PORTLAND, OREG.

Incorporated as city: 1851.
Mayor: Dorothy McCullough Lee (Jan., 1953).
1940 population & (rank): 305,394 (27).
1950 population & (rank): 373,628 (29).
1940–50 population change: +22.3%.
1950 area: Land, 69.5 sq. mi.; inland water, 3.4.
Altitude: Highest, 1,073 ft.; lowest, sea level.
Location: In NW part of state, on Willamette River.
County: Seat of Multnomah Co.
Churches: Protestant, 400; Roman Catholic, 37; Jewish, 10; Buddhist, 2.
City-owned parks: 99 (4,892 ac.).
Telephones: 202,363.
Radio stations: AM, 8; FM, 5.
Television stations: None.
Assessed valuation (1950–51): $518,938,420.
City tax rate (1950–51): $17.90 per $1,000.
Bonded debt (June 30, 1951): $20,848,630.92.
Revenue (1950–51): $21,037,521.68.
Expenditure (1950–51): $22,710,749.74.

Portland has a background of snow-capped mountains to the north and east. Mount Hood rises 11,245 feet above sea level, and is visible for great distances throughout Oregon. Because of the Japan Current, however, Portland itself has a mild climate.

So equable is the city's weather that climbing roses run rampant over fences and houses and sometimes even telephone poles. Portland holds a famous Rose Festival each year in June. Reflecting the diverse interests of the region, there takes place in October the Pacific International Livestock Exposition, including a horse show and rodeo.

Lewis and Clark sailed past the site of Portland in 1805, on an expedition across the continent for which Congress had appropriated $2,500. They had started up the Missouri in the spring of 1804, and they reached the mouth of the Columbia River in canoes on Nov. 11, 1805. They built a fort near the present site of Astoria. From there up to Portland, the Columbia is wide and placid. At Portland the Willamette flows into the Columbia, which from that point east begins to flow through higher and higher bluffs up to the famous Columbia River Gorge. A dozen beautiful waterfalls drop hundreds of feet over the solid rock walls on the Oregon side of the gorge.

The great new aluminum plants and shipyards in the Portland area are among a large group of major industries founded in the Northwest following the completion of the great Bonneville Dam on the Columbia River.

PROVIDENCE, R. I.

Incorporated as city: 1832.
Mayor: Walter H. Reynolds (Jan., 1953).
1940 population & (rank): 253,504 (37).
1950 population & (rank): 248,674 (43).
1940–50 population change: —1.9%.
1940 area: Land, 17.9 sq. mi.; inland water, 1.0.
Altitude: Highest, 253 ft.; lowest, sea level.
Location: In northern part of state, at head of Providence River (north arm of Narragansett Bay).
County: Seat of Providence Co.
Churches: Protestant, 94; Roman Catholic, 31.
City-owned parks: 33 (815 ac.).
Radio stations: AM, 7; FM, 6.
Television stations: 1.
City tax rate (1951): $29.40 per $1,000.
Net bonded debt (1951 est.): $45,025,239.
Revenue (1952 budget): $27,599,763.
Expenditure (1952 budget): $27,566,989.

Roger Williams was a religious rebel, and he was banished from Massachusetts. In 1636 he founded Providence, which he so named in gratitude "for God's merciful providence in my distress." Two years later he organized the First Baptist Church "for the worship of God and to hold college commencements in." Brown University to this day holds its commencements in this church.

Roger Williams still is remembered in Providence by a monument overstanding his grave, and by 452-acre Roger Williams Park, nearly one-third of which is a chain of lakes.

Since his time, Providence has become the second largest city in New England. Its early rise was due to its shipping trade, which included slaves, rum and molasses from the West Indies. Today it distributes oil, coal and lumber. Apart from sea trade, Providence has a thriving textile industry manufacturing woolens, worsteds and cottons. The city also is a leading center of jewelry manufacture.

RICHMOND, VA.

Incorporated as city: 1782.
Mayor: T. Nelson Parker (July, 1952).
City Manager: Sherwood Reeder (apptd. 1948).
1940 population & (rank): 193,042 (45).
1950 population & (rank): 230,310 (46).
1940–50 population change: +19.3%.
1951 area: Land, 39.89 sq. mi.; inland water, 2.81.
Altitude: Highest, 312 ft.; lowest, 0.
Location: In east central part of state, on James River.
County: Administratively independent.

Churches: Protestant, 201; Roman Catholic, 13; Jewish, 5; others, 74.
City-owned parks*: 53 (1,100.29 ac.).
Radio stations: AM, 6; FM, 4.
Television stations: 1.
Assessed valuation (1950): $407,953,221.
City tax rate (1949–50): Real and personal property, $2.20 per $100; machinery, $1 per $100.
Bonded debt (June 30, 1951): $35,737,569.28.
Revenue (June 30, 1951): $24,997,586.91.
Expenditure (June 30, 1951): $23,467,574.95.

* Including 35 playgrounds.

In 1609, Capt. John Smith attempted to establish, near the present site of Richmond, a settlement which he called None Such. He was unsuccessful, however, and the land was later bought from Chief Powhatan for the Virginia Company. Richmond was laid out in 1737 by Col. William Byrd, and in 1779 it became the state capital.

Today Richmond is one of the leading tobacco markets of the country. It has factories producing not only cigars and cigarettes but also chewing tobacco and snuff. Tobacco is its main industry.

Richmond had two periods of especial historical renown. One was in 1775 when the Virginia Convention met in St. John's Church to discuss the Revolution. George Washington and Thomas Jefferson attended. Patrick Henry made his famous speech in which he said: "I know not what course others may take; but as for me, give me liberty or give me death."

Again, during the Civil War, Richmond came into the historical spotlight. The city was the capital of the Confederacy. One after another, the Northern generals—McClellan, Burnside, Hooker and Meade—failed to take Richmond. Grant finally succeeded, although not by storming the city itself. His siege of Petersburg ended in the downfall of the Confederacy. When Richmond was evacuated, the Confederate Congress ordered the burning of warehouses containing tobacco and cotton; and the principal business section of the city was destroyed by the spreading flames.

Among the historical buildings which remain in Richmond are the Capitol, which was designed by Thomas Jefferson after the Maison Carrée, an ancient Roman temple at Nîmes, France. In the rotunda is the famous statue of George Washington made from life in 1785 by Jean Antoine Houdon.

ROCHESTER, N. Y.

Incorporated as city: 1834.
Mayor: Samuel B. Dicker (Dec., 1952).
City Manager: Louis B. Cartwright (apptd. 1940).
1940 population & (rank): 324,975 (23).
1950 population & (rank): 332,488 (32).
1940–50 population change: +2.3%.
1940 area: Land, 34.8 sq. mi.; inland water, 0.5.
Altitude: Highest, 655 ft.; lowest, 246 ft.
Location: In west part of state, on Genesee River.
County: Seat of Monroe Co.
Churches: Protestant, 128; Roman Catholic, 38; Jewish, 19; others, 22.
City-owned parks: 23 (1,880 ac.).
Telephones: 152,454.
Radio sets: 275,000.
Television sets: 85.000.
Radio stations: AM, 6; FM, 2.
Television stations: 1.
Assessed valuation (1951): $590,506,172.
City tax rate (1951): $31.20 per $1,000.
Bonded debt (Dec. 31, 1950): $18,440,000.
Revenue (1950): $34,110,563.15.
Expenditure (1950): $33,700,057.52.

Rochester is the mecca of camera enthusiasts. Here is the home of the Eastman Kodak Company, and here is manufactured 90 per cent of the nation's motion-picture film. Tours of the Kodak plants are conducted daily. And at the George Eastman House is a photographic museum in which are exhibitions and demonstrations of picture processes of interest to both amateur and professional photographers.

Rochester also is one of the world's leading centers for the manufacture of optical goods and surgical instruments. The Bausch and Lomb Optical Company and the Taylor Instrument Company are here.

In addition to its factories, Rochester prides itself on its flowers. In the botanical gardens of Highland Park is the world's largest collection of lilacs—403 varieties. When they bloom about the end of May, a Lilac Week celebration is held.

ST. LOUIS, MO.

Incorporated as city: 1822.
Mayor: Joseph M. Darst (Apr., 1953).
1940 population & (rank): 816,048 (8).
1950 population & (rank): 856,726 (8).
1940–50 population change: +5.0%.
1950 area: Land, 61.0 sq. mi.; inland water, 4.0.
Altitude: Highest, 605 ft.; lowest, 410 ft.
Location: On Mississippi River, near its conjunction with Missouri River.
County: In St. Louis Co., but independent city.
Churches: 1,021.
City-owned parks: 88 (3,588 ac.).
Telephones: 517,553 (metropolitan area).
Radio sets: 450,000.
Television sets: 297,000.
Radio stations: AM, 10; FM, 4.
Television stations: 1.
Assessed valuation (1950): $1,308,000,000.
City tax rate (1950): $2.85 per $100.
Bonded debt (1950): $27,719,000.
Revenue (1950): $50,692,045.52.
Expenditure (1950): $49,387,126.24.

St. Louis is one of the major industrial centers of the nation. Among its other noteworthy features is that it is the leading beer-producing center of the country. The Anheuser-Busch brewery, largest in the world, is open to visitors. St. Louis also is important in the production of stoves, sugar-mill machinery, steel cars, shoes and meat packing.

The city is one of the oldest settlements in the Mississippi Valley, having been founded in 1764 as a trading post and named

after Louis IX of France. It was at St. Louis that "Upper Louisiana" was transferred by France to the U. S. in 1804.

South of St. Louis lie the Ozark Mountains, one of the outstanding playgrounds of the mid-continent. The Ozarks country is a region of rugged, wooded hills, deep valleys and swift streams, many of which provide excellent fishing. The Ozark ridges extend into Arkansas and Oklahoma.

SALT LAKE CITY, UTAH

Incorporated as city: 1851.
Mayor: Earl J. Glade (Jan., 1956).
1940 population & (rank): 149,934 (57).
1950 population & (rank): 182,121 (52).
1940–50 population change: +21.5%.
1940 area: Land, 52.5 sq. mi.; inland water, 0.
Altitude: 4,255 ft.
Location: In northern part of state, on Jordan River, near Great Salt Lake.
County: Seat of Salt Lake Co.
Churches: Mormon, 135; Roman Catholic, 8; Jewish, 4; others, 38.
City-owned parks: 20 (1,134 ac.).
Telephones: 86,500
Radio sets: 53,000.
Television sets: 20,000.
Radio stations: AM, 5; FM, 3.
Television stations: 2.
Assessed valuation (1949): $187,897,877.
City tax rate (1949): $18.75 per $1,000.
Bonded debt (1949): $3,397,000.
Revenue (1949): $8,967,593.30.
Expenditure (1949): $8,772,556.21.

The Mormons, headed by Brigham Young, founded Salt Lake City in July, 1847, feeling that the soil was good, although dry. They dammed a creek across the site of the present city, and thereby introduced one of the first irrigation projects in America. Other Mormon bands came in, and by 1852 the colony numbered some 15,000.

Troops had to be kept in Salt Lake City for several years because of disagreements between non-Mormons and Mormons. The practice of polygamy was renounced by the





Mormon Church in 1890, and Utah received statehood six years later.

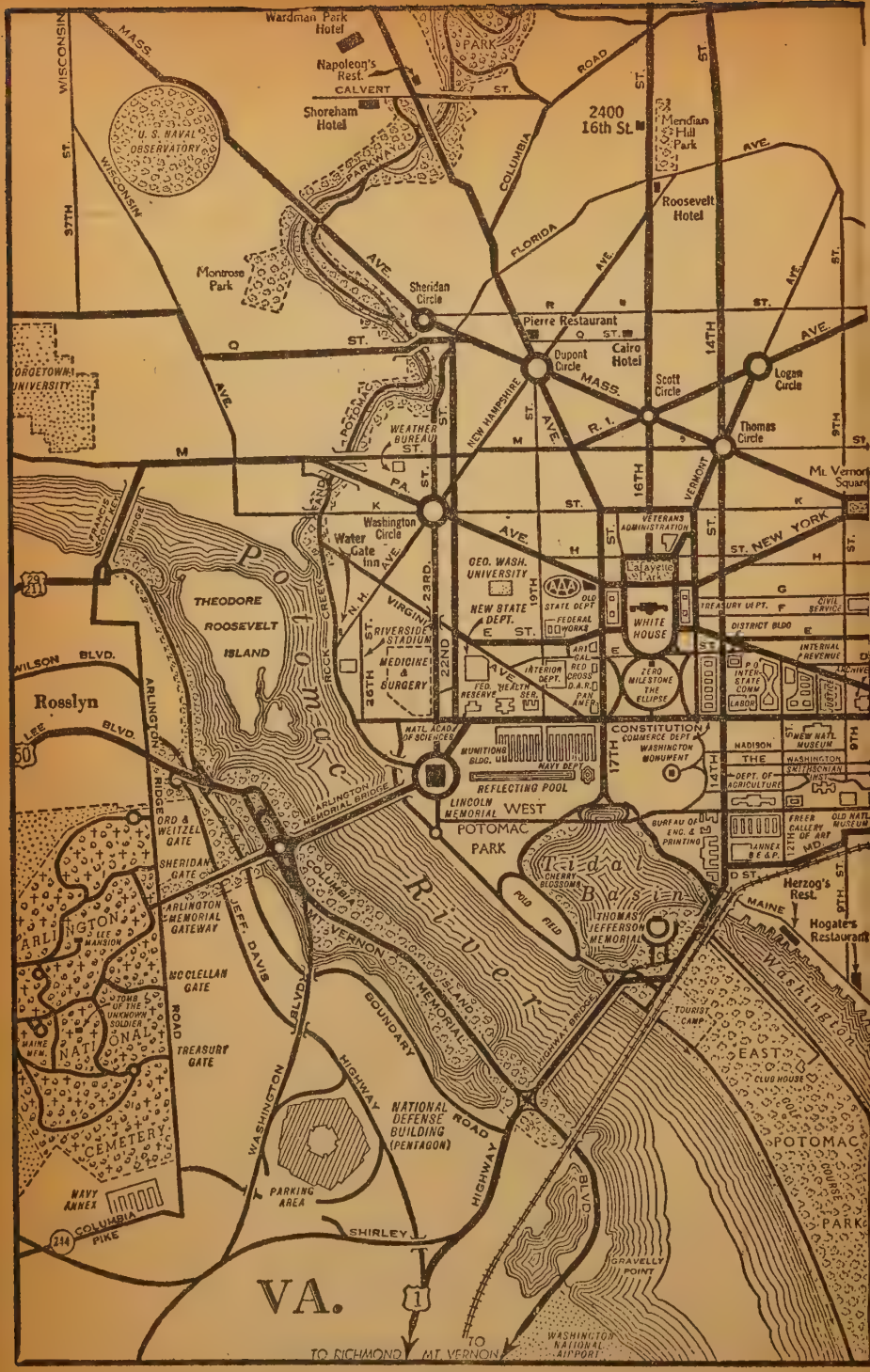
Some of Salt Lake City's most interesting edifices are those occupied or inspired by Brigham Young and his family. The Mormon Temple was 40 years in the building (1853-1893), and none but Mormons are permitted to enter. The Mormon Tabernacle, with its great domed roof, seats 8,000 people. The acoustical properties of the building are reputed to be so remarkable that a pin dropped at the organ may be heard from the farthest seat. The organ contains more than 10,500 pipes, and its programs have been heard over nation-wide radio networks. The public is admitted at specified hours.

Sixteen miles from Salt Lake City is Great Salt Lake, an inland sea.

SAN FRANCISCO, CALIF.

Incorporated as city: 1850.
Mayor: Elmer E. Robinson (Jan., 1956).
1940 population & (rank): 634,536 (12).
1950 population & (rank): 775,357 (11).
1940–50 population change: +22.2%.
1940 area: Land, 44.6 sq. mi.; inland water, 48.5.
Altitude: Highest, 900 ft.; lowest, sea level.
Location: Between Pacific Ocean and San Francisco Bay.
County: Coextensive with San Francisco Co.
Churches: 353.
City-owned parks: 52.
Telephones (1950): 441,299.
Radio sets (1950): 289,311.
Television sets (1950–51): 91,300.

[San Francisco continued on p. 74.]


Wardman Park Hotel
Napoleon's Rest
CALVERT ST.
Shoreham Hotel
U. S. NAVAL OBSERVATORY
WISCONSIN AVE.
MASS. AVE.
37TH ST.
PARK ROAD
COLUMBIA ROAD
2400 16th St.
Meridian Hill Park
Roosevelt Hotel
FLORIDA AVE.
Montrose Park
Sheridan Circle
Pierre Restaurant
Dupont Circle
Cairo Hotel
Scott Circle
Logan Circle
Thomas Circle
GEORGETOWN UNIVERSITY
WEATHER BUREAU
NEW HAMPSHIRE AVE.
R. I. AVE.
VERMONT AVE.
16TH ST.
14TH ST.
9TH ST.
Mt. Vernon Square
Washington Circle
Water Gate Inn
PA. AVE.
K ST.
NEW YORK AVE.
VETERANS ADMINISTRATION
GEO. WASH. UNIVERSITY
Lafayette Park
STATE DEPT.
OLD FEDERAL WORKS
WHITE HOUSE
TREASURY DEPT.
CIVIL SERVICE
DISTRICT BLDG.
INTERNAL REVENUE
FRANCE-CONTINENTAL BRIDGE
THEODORE ROOSEVELT ISLAND
POTOMAC RIVER
ROCK CREEK
N.H. ST.
VIRGINIA AVE.
23RD ST.
22ND ST.
RIVERSIDE STADIUM
MEDICINE & SURGERY
NAT'L ACAD OF SCIENCES
INTERIOR DEPT.
RED CROSS
PAN AMER.
FED. RESERVE
HEALTH SER.
ZERO MILESTONE
THE ELLIPSE
INTERSTATE COMM. LABOR
WILSON BLVD.
Rosslyn
LEE BLVD.
ARLINGTON
ARLINGTON MEMORIAL BRIDGE
MUNITIONS BLDG.
NAVY DEPT.
REFLECTING POOL
LINCOLN MEMORIAL
WEST POTOMAC PARK
CONSTITUTION
COMMERCE DEPT.
WASHINGTON MONUMENT
MADISON
THE SMITHSONIAN INST.
DEPT. OF AGRICULTURE
NEW NAT'L MUSEUM
FREER GALLERY OF ART
OLD NAT'L MUSEUM
BUREAU OF ENG. & PRINTING
ANNEX B.E.P.
ORD & WEITZEL GATE
SHERIDAN GATE
ARLINGTON MEMORIAL GATEWAY
LEE MANSION
JEFF. DAVIS HWY.
COLUMBIA PIKE
Tidal Basin
CHERRY BLOSSOM
POOL
THOMAS JEFFERSON MEMORIAL
Herzog's Rest.
Hogate's Restaurant
MAINE
ARLINGTON NATIONAL CEMETERY
TOMB OF THE UNKNOWN SOLDIER
MAINE MEM.
McCLELLAN GATE
TREASURY GATE
MT. VERNON MEMORIAL HIGHWAY
BOUNDARY
WASHINGTON BLVD.
HIGHWAY
NATIONAL DEFENSE BUILDING (PENTAGON)
PARKING AREA
NAVY ANNEX
SHIRLEY
TOURIST CAMP
CLUB HOUSE
EAST POTOMAC PARK
GRAVELLY POINT
VA.
TO RICHMOND
TO MT. VERNON
WASHINGTON NATIONAL AIRPORT


WASHINGTON
D.C.
To Bolling Air Force Base
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TO SOUTHERN MARYLAND
Potomac River
Anacostia River
Anacostia
Potomac
Rhode Island Ave.
Florida Ave.
New York Ave.
Montana Ave.
Maryland Ave.
Pa. Ave.
Independence Ave.
Constitution Ave.
Virginia Ave.
Tennessee Ave.
North Carolina Ave.
South Carolina Ave.
Kentucky Ave.
Minnesota Ave.
Good Hope Road
Benning
Oklahoma Ave.
Bladensburg
West Virginia
Griffith Stadium
Brentwood Park
Columbia Institution for the Deaf
Gallaudet College
Uline Ice Arena
Union Station
Stanton Park
Commodore Hotel
Dodge Hotel
Hotel Continental
Plaza Hotel
Carroll Arms Hotel
Hotel Congressional
Supreme Court
East Capitol
U.S. Capitol
Folger Shakespeare Mem. Library
Library of Congress
House Office Bldg.
Senate Office
Natl. Gallery of Art
Mall
Jeff. Army Institute of Pathology
Lincoln Park
National Guard Armory
Folger Park
Garfield Park
Marine Barracks
U.S. Navy Yard
John Philip Sousa Memorial Bridge
Anacostia Park
Fort Stanton Park
Fort Lesley J. McNair
Greenleaf Point
Naval Air Station
U.S. Navy Receiving Station
Chain Bridge
Delaware Ave.
New Jersey Ave.
Capitol St.
7th St.
9th St.
11th St.
13th St.
15th St.
17th St.
19th St.
1st St.
2nd St.
3rd St.
4th St.
6th St.
Uline Arena
Govt. Printing Office
City P.O.
Court House
Fed. Trade Com.
Municipal Building
Mass. Ave.
Indiana Ave.
Penn. Ave.
Drive
Mall
Adams
Jeff.
Annex
Botanic Garden
5

Radio stations: AM, 8; FM, 7.
Television stations: 3.
Assessed valuation (1951–52): $1,730,571,685.
City tax rate (1951–52): $6.19 per $100.
Bonded debt (July 1, 1951): $178,777,000.
Revenue (1949–50): $103,239,731.
Expenditure (1949–50): $101,501,574.

A narrow arm of land embraces San Francisco Bay, the largest land-locked harbor in the world, and shelters it from the Pacific Ocean. On this arm of land is San Francisco, a city on hills, almost surrounded by water.

In 1776, the Spaniards established a presidio, or military post, on the end of the fabulously beautiful peninsula. In the following year, a little town called Yerba Buena ("Good Herb," because mint grew in abundance) was founded—the origin of the present San Francisco.

When gold was discovered in California in 1848, the city quickly jumped to 10,000, and it experienced turbulent years until order was established by Vigilance Committees, first in 1851 and again in 1856. Then followed a period of more orderly growth, and the foundations of the great commerce and industry of today were laid.

San Francisco is the outstanding seaport on the Pacific Coast. Its 43 piers and 17 miles of berthing space handle more than 20 million tons of freight a year. It was one of the great shipbuilding centers in World War I, at Mare Island, and again in World War II, in the Henry Kaiser mass-production yards. It remains one of the country's major naval-training centers.

Two of the world's most famous bridges are at San Francisco. One is the Golden Gate Bridge, spanning the strait which is the entrance to the bay. It is the largest single-span suspension bridge in the world, with an over-all length of 8,940 feet. The other bridge connects San Francisco with Oakland across the bay to the east. It is 8¼ miles long, including approaches, and 4½ miles of it is over navigable water.

San Francisco has the only municipally owned opera house in America. It is one of the buildings in the Civic Center, which occupies more than three square blocks. In 1945, the Civic Center was the scene of the international conference that drew up the Charter for the U. N. and was also the site of the signing of the Japanese peace treaty.

The largest Chinatown outside the Orient occupies twelve square blocks of San Francisco and has a population of 16,000. Delicious Chinese food is served in its restaurants, fine Chinese products are in its shops, and theatrical stars from Canton and Shanghai appear in its theaters. It has the only Chinese telephone exchange in the U. S.

SEATTLE, WASH.

Incorporated as city: 1869.
Mayor: William F. Devin (June, 1952).
1940 population & (rank): 368,302 (22).
1950 population & (rank): 467,591 (19).
1940–50 population change: +27.0%.
1940 area: Land, 68.5 sq. mi.; inland water, 12.2.
Altitude: Highest, 540 ft.; lowest, sea level.
Location: In west central part of state, on Puget Sound.
County: Seat of King Co.
Churches: Protestant, 258; Roman Catholic, 25; Jewish, 7.
City-owned parks: 167 (2,941.66 ac.).
Telephones (1950): 269,148.
Radio sets (1951): 230,512.
Television sets (1951): 87,500.
Radio stations: AM, 9; FM, 3.
Television stations: 1.
Assessed valuation (1950): $420,486,621.
City tax rate (1950): $48.80 per $1,000.
Bonded debt* (Dec. 31, 1950): $21,524,000.
Revenue* (1950): $18,625,694.
Expenditure* (1950): $18,625,694.

*General; not including city-owned light, water, transit systems.

A city of steep hills, Seattle lies between two bodies of water—Puget Sound on the west and Lake Washington on the east. The fine landlocked harbor has made Seattle one of the major ports of the U. S., with docks accommodating 120 seagoing vessels at one time. Shipping routes to the Orient and Alaska are the most important.

Washington leads the nation in sea foods, and Seattle reflects that supremacy by being the largest halibut port in the world. Of the entire season's catch of cod, more than half is salted and shipped inland. Canned salmon also is a big item in Seattle's industry.

Huge log rafts of fir and red cedar move out of Seattle for the lumber markets. The city's home industries include shipyards and the Boeing airplane plant.

From the western side of Seattle, the Olympic Mountains are visible across Puget Sound. On the east are the Cascade Mountains. To the south is snow-capped Mt. Rainier, and to the north is Mt. Baker.

SYRACUSE, N. Y.

Incorporated as city: 1848.
Mayor: Thomas J. Corcoran (Jan., 1953).
1940 population & (rank): 205,967 (41).
1950 population & (rank): 220,583 (47).
1940–50 population change: +7.1%.
1940 area: Land, 25.3 sq. mi.; inland water, 0.4.
Altitude: Highest, 840 ft.; lowest, 363.
Location: Central part of state, near Oneida Lake.
County: Seat of Onondaga Co.
Churches: Protestant, 86; Roman Catholic, 23; Jewish, 8; others, 8.
City-owned parks: 173 (2,158 ac.).
Telephones: 101,640.
Radio stations: AM, 5; FM, 2.
Television stations: 2.
Assessed valuation: Real estate, $346,203,722; special franchise, $16,383,203.
City tax rate: $29.46 per $1,000.
Bonded debt (Dec. 31, 1950): $4,956,750.

WASHINGTON, D. C.

For District of Columbia, see p. 30.

Tabulated Data on City Governments

Source: Questionnaires to the cities.

City	MAYOR Term, years	MAYOR Salary[1]	City manager's salary[1,2]	COUNCIL OR COMMISSION Name	Members	Term, years	Salary[1]
Atlanta, Ga.	4	$13,500	.....	Council	18	4	$ 150[3]
Baltimore, Md.	4	15,000	.....	Council	21	4	4,000
Birmingham, Ala.	4	8,600	.....	Commission	2	4	7,600
Boston, Mass.	2	20,000	.....	Council	22	2	3,000
Buffalo, N. Y.	4	12,000	.....	Council	15	2[4]	3,500
Chicago, Ill.	4	18,000	.....	Council	50	4	5,000
Cincinnati, Ohio	2	7,000	$25,000	Council	9	2	5,000
Cleveland, Ohio	2	15,000	.....	Council	33	2	4,000
Dallas, Tex.	2	20[5]	15,000	Council	9	2	20[5]
Denver, Colo.	4	14,000	.....	Council	9	4	3,000[10]
Des Moines, Iowa	4	300	20,000	Council	5	4[6]	300
Detroit, Mich.	2	25,000	.....	Council	9	2	5,000
Hartford, Conn.	2	None	18,000	Council	9	2	None
Houston, Tex.	2	20,000	.....	Council	8	2	300[7]
Indianapolis, Ind.	4	12,000	.....	Council	9	4	1,200
Jersey City, N. J.	4	8,000	.....	Commission	5	4	7,500
Los Angeles, Calif.	4	18,000	.....	Council	15	2	7,200
Memphis, Tenn.	4	12,500	.....	Commission	5	4	6,000
Miami, Fla.	2	5,000	15,750	Commission	5	4	5,000
Milwaukee, Wis.	4	13,906	.....	Council	27	4	5,305
Minneapolis, Minn.	2	9,000[8]	.....	Council	26	4	4,200[9]
New Orleans, La.	4	12,000	.....	Commission	8	4	7,500
New York, N. Y.	4	40,000	.....	Council	25	4	7,000
Newark, N. J.	4	11,000	.....	Commission	5[12]	4	10,000[12]
Oklahoma City, Okla.	4	1,000	15,000	Council	8	4	10[5]
Omaha, Nebr.	3	5,000	.....	Commission	6	3	4,500
Philadelphia, Pa.	4	19,800	.....	Council	22	4	7,500
Pittsburgh, Pa.	4	15,000	.....	Council	9	4	8,000
Portland, Oreg.	4	6,000	.....	Commission	5	4	5,000
Providence, R. I.	2	9,000	.....	Council	26	2	1,500
Richmond, Va.	2	1,200	20,000	Council	9	2	1,200
Rochester, N. Y.	2	2,250	15,000	Council	9	4	1,500
St. Louis, Mo.	4	10,000	.....	Council	29	4	3,000[11]
Salt Lake City, Utah	4	6,000	.....	Commission	5	4	5,000
San Francisco, Calif.	4	20,000	.....	Council	11	4	2,400
Seattle, Wash.	4	10,000	.....	Council	9	4	4,800
Spokane, Wash.		5,000	.....	Commission	5	4	5,000
Syracuse, N. Y.	4	15,000	.....	Council	10	2	2,500
Tulsa, Okla.	2	8,200	.....	Commission	4	2	6,000
Wichita, Kans.	1	360	12,500	Council	5	4	360

[1] Annual, unless otherwise indicated. [2] City Manager's term is indefinite and at will of Council. [3] Per month [4] For District Councilmen; 4 years for Councilmen at-large. [5] Per Council meeting. [6] For 3 members; 2 years for 2 members. [7] Per month part-time. [8] Until July 1, 1951; then $6,000. [9] Until July 1, 1951; then $2,400. [10] President receives $4,000. [11] President receives $5,000. [12] Including mayor. [13] Although blanket raise was passed effective Jan. 1, 1951, 2 members would not accept it and still receive $7,500.

Tabulated Data on State Governments

Source: Questionnaires to the states.

State	GOVERNOR		LEGISLATURE[1]					HIGHEST COURT[2]		
	Term	Annual salary	Membership U[3]	Membership L[4]	Term U[3]	Term L[4]	Salaries of members[5]	Members	Term	Annual salary
Alabama	4[6]	$12,000	35	106	4	4	$ 20 per diem	7	6	$ 9,500
Arizona	2	10,000	19	72	2	2	8 per diem	5	6	8,500
Arkansas	2[7]	10,000	35	100	4	2	1,200 per biennium	7	8	9,000
California	4	25,000	40	80	4	2	3,600 per annum	7	12	13,000[25]
Colorado	2	10,000	35	65	4	2	100 per month	7	10	6,500[26]
Connecticut	4	12,000	36	277	2	2	600 per term	5	8	15,000
Delaware	4	7,500	17	35	4	2	1,977 per annum	3	12	17,000[27]
Florida	4[6]	12,000	38	95	4	2	10 per diem	7	6	13,000
Georgia	4[6]	12,000	54	205	2	2	15 per diem	7	6	8,000
Idaho	4[8]	7,500	44	59	2	2	10 per diem	4	6	7,500
Illinois	4	12,000	51	153	4	2	3,000 per annum	7	9	15,000
Indiana	4[6]	8,000[28]	50	100	4	2	1,200 per annum	5	6	13,500
Iowa	2	12,000	50	108	4	2	3,000 per session	9	6	7,500
Kansas	2	10,000	40	125	4	2	5 per diem	7	2	10,000
Kentucky	4[6]	10,000	38	100	4	2	25 per diem	7	8	9,000
Louisiana	4[6]	12,000	39	100	4	4	20 per diem	7	14	15,000
Maine	2	10,000	33	151	2	2	850 per session	6	7	11,000[29]
Maryland	4[8]	4,500	29	123	4	4	1,800 per annum	5	15	15,500
Massachusetts	2	20,000	40	240	2	2	3,750 per annum	7	Life	17,000
Michigan	2	22,500	32	100	2	2	2,400 per annum	8	8	15,000
Minnesota	2	15,000	67	131	4	2	3,000 per session	7	6	13,500[30]
Mississippi	4[6]	10,000[9]	43	140	4	4	1,500 per session[10]	6	8	10,000
Missouri	4[6]	10,000	34	154	4	2	1,500 per annum	7	12	12,000
Montana	4	7,500	55	90	4	2	10 per diem	5	6	9,000
Nebraska	2	10,000	43[11]		2[11]		872 per annum	7	6	8,500
Nevada	4	9,100	17	47	4	2	15 per diem	3	6	9,500
New Hampshire	2	10,000	24	([13])	2	2	200 per biennium	5	([14])	9,500
New Jersey	4[8]	20,000	21	60	4	2	3,000 per annum	([15])	7	21,000[12]
New Mexico	2[8]	10,000	24	49	4	2	10 per diem	5	8	8,000
New York	4	25,000	56	150	2	2	5,000 per annum	7	14	23,000
North Carolina	4[6]	15,000	50	120	2	2	15 per diem[31]	7	8	14,400
North Dakota	2	6,000	49	113	4	2	5 per diem	5	10	8,750
Ohio	2	20,000	33	135	2	2	3,200 per annum	7	6	15,000
Oklahoma	4[6]	15,000	44	([16])	4	2	15 per diem[17]	9	6	12,500
Oregon	4[8]	11,000	30	60	4	2	600 per annum	7	6	9,500
Pennsylvania	4[6]	25,000	50	203	4	2	3,000 per session	7	21	23,000
Rhode Island	2	15,000	44	100	2	2	5 per diem[19]	5	([20])	17,000[13]
South Carolina	4[6]	12,000	46	124	4	2	1,000 per session	5	10	10,000
South Dakota	2[8]	9,100	35	75	2	2	1,050 per biennium	5	6	7,200
Tennessee	2[21]	12,000	33	99	2	2	4 per diem[22]	5	8	12,000
Texas	2	12,000	31	150	4	2	10 per diem[23]	9	6	15,000
Utah	4	7,500	23	60	4	2	500 per annum	5	10	7,200
Vermont	2	10,000	30	246	2	2	1,000 per session	5	2	9,500
Virginia	4[6]	15,000	40	100	4	2	720 per session[24]	7	12	19,000
Washington	4	15,000	46	99	4	2	1,200 per annum	9	6	12,000
West Virginia	4[6]	10,000	32	94	4	2	500 per annum	5	12	12,500
Wisconsin	2	12,500	33	100	4	2	200 per month[32]	7	10	12,000[33]
Wyoming	4	8,000	27	56	4	2	12 per diem	3	8	8,000

[1] Known as **General Assembly** in Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kentucky, Maryland, Missouri, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia; **Legislative Assembly** in Montana, North Dakota, Oregon; **General Court** in Massachusetts, New Hampshire; **Legislature** in other states. Meets annually in California, Maryland, Massachusetts, New Jersey, New York, Rhode Island, South Carolina; biennially in other states. [2] Known as **Court of Appeals** in Kentucky, Maryland, New York; **Supreme Court of Appeals** in Virginia, West Virginia; **Supreme Judicial Court** in Maine, Massachusetts; **Supreme Court of Errors** in Connecticut; **Superior Court** in New Jersey; **Supreme Court** in other states. [3] Upper house; known as **Senate** in all states. [4] Lower house; known as **Assembly** in California, Nevada, New York, Wisconsin; **House of Delegates** in Maryland, Virginia, West Virginia; **House of Assembly** in New Jersey; **House of Representatives** in other states. [5] Does not include additional payment for expenses, mileage, etc. [6] Cannot succeed himself. [7] Constitutional amendment being voted on Nov. 7, 1950, for 4-year term and prohibition of second consecutive term. [8] May not serve a third consecutive term. [9] $15,000 beginning 1952. [10] $2,000 beginning 1952. [11] Unicameral legislature. [12] Chief Justice, $25,000. [13] Varies from 350 to 400. [14] Until 70 years old. [15] Not less than 24 judges. [16] Varies from 118 to 120. [17] During session; $100 per month when not in session. [18] Chief Justice, $18,000. [19] For 60 days only. [20] "Term of good behavior." [21] May not serve a fourth consecutive term. [22] For 75 days only. [23] For first 120 days; $5 per diem thereafter. [24] $1,080 after Jan. 1952. [25] Chief Justice, $20,500. [26] For those elected before 1948; $7,500 for those elected since 1948; $8,500 for those elected after 1952 or appointed by governor since enactment of higher salary. [27] Chief Justice, $17,500. [28] To be $15,000 after Jan. 1953. [29] Chief Justice, $12,000. [30] Chief Justice, $14,500. [31] For 90 only. [32] Senators elected in 1948 for 4-year term will receive $100 per month until end of terms, except they will receive up to $100 per month for living expenses for first 2 months of any special session. [33] Chief Justice, $12,500.

CONGRESS OF THE UNITED STATES

PARTY STRENGTH IN CONGRESS

The Senate (Necessary to majority—49)

	73rd 1933	74th 1935	75th 1937	76th 1939	77th 1941	78th 1943	79th 1945	80th 1947	81st 1949	82nd 1951
Democratic	59	69	75	69	66	57	57	45	54	49
Republican	36	25	17	23	28	38	38	51	42	47
Farmer-Labor	1	1	2	2	0	0	0	0	0	0
Progressive	0	1	1	1	1	1	1	0	0	0
Independent	0	0	1	1	1	0	0	0	0	0

The House (Necessary to majority—218)

Democratic	313	322	333	262	268	222	243	188	263	235
Republican	117	103	89	170	162	209	190	246	171	199
Farmer-Labor	5	3	5	1	1	1	0	0	0	0
Progressive	0	7	8	2	3	2	1	0	0	0
Independent	0	0	0	0	1	0	0	0	0	1
American Labor	0	0	0	0	0	1	1	1	1	0

NOTE: The year shown with each Congress is the one in which the first session was held. The party breakdown is according to the election held the preceding November.

THE EIGHTY-SECOND CONGRESS

THE SENATE

Democrats are in *italic* type; Republicans in roman. The expiration date of each senator's term is Jan. 3 of the year shown in parentheses. An asterisk (*) indicates that the senator was returned to office in the election of Nov. 7, 1950.

ALABAMA
John J. Sparkman (1955)
**Lister Hill* (1957)

ARIZONA
Ernest W. McFarland (1953)
**Carl Hayden* (1957)

ARKANSAS
John L. McClellan (1955)
**J. William Fulbright* (1957)

CALIFORNIA
William F. Knowland (1953)
Richard M. Nixon (1957)

COLORADO
Edwin C. Johnson (1955)
*Eugene D. Millikin (1957)

CONNECTICUT
William Benton (1953)[1]
**Brien McMahon* (1957)

DELAWARE
John J. Williams (1953)
J. Allen Frear, Jr. (1955)

FLORIDA
Spessard L. Holland (1953)
George A. Smathers (1957)

GEORGIA
Richard B. Russell (1955)
**Walter F. George* (1957)

IDAHO
Henry C. Dworshak (1955)[2]
Herman Welker (1957)

ILLINOIS
Paul H. Douglas (1955)
Everett M. Dirksen (1957)

INDIANA
William E. Jenner (1953)
*Homer E. Capehart (1957)

IOWA
Guy M. Gillette (1955)
*Bourke B. Hickenlooper (1957)

KANSAS
Andrew F. Schoeppel (1955)
Frank Carlson (1957)

KENTUCKY
Thomas R. Underwood[6]
Earle C. Clements (1957)

LOUISIANA
Allen J. Ellender, Sr. (1955)
**Russell B. Long* (1957)

MAINE
Owen Brewster (1953)
Margaret Chase Smith (1955)

MARYLAND
Herbert R. O'Conor (1953)
John M. Butler (1957)

MASSACHUSETTS
Henry Cabot Lodge, Jr. (1953)
Leverett Saltonstall (1955)

MICHIGAN
Blair Moody (1953)[7]
Homer Ferguson (1955)

MINNESOTA
Edward J. Thye (1953)
Hubert H. Humphrey (1955)

MISSISSIPPI
John C. Stennis (1953)[3]
James O. Eastland (1955)

MISSOURI
James P. Kem (1953)
Thomas C. Hennings, Jr. (1957)

MONTANA
Zales N. Ecton (1953)
James E. Murray (1955)

NEBRASKA
Hugh Butler (1953)
Kenneth S. Wherry (1955)

NEVADA
George W. Malone (1953)
**Pat McCarran* (1957)

NEW HAMPSHIRE
Styles Bridges (1955)
*Charles W. Tobey (1957)

NEW JERSEY
H. Alexander Smith (1953)
Robert C. Hendrickson (1955)

NEW MEXICO
Dennis Chavez (1953)
Clinton P. Anderson (1955)

NEW YORK
Irving M. Ives (1953)
**Herbert H. Lehman* (1957)

NORTH CAROLINA
Willis Smith (1955)[4]
**Clyde R. Hoey* (1957)

NORTH DAKOTA
William Langer (1953)
*Milton R. Young (1957)

OHIO
John W. Bricker (1953)
*Robert A. Taft (1957)

OKLAHOMA
Robert S. Kerr (1955)
A. S. Mike Monroney (1957)

OREGON
Guy Cordon (1955)
*Wayne Morse (1957)

PENNSYLVANIA
Edward Martin (1953)
James H. Duff (1957)

RHODE ISLAND
John O. Pastore (1953)[5]
Theodore Francis Green (1955)

SOUTH CAROLINA
Burnet R. Maybank (1955)
**Olin D. Johnston* (1957)

SOUTH DAKOTA
Karl E. Mundt (1955)
Francis Case (1957)

TENNESSEE
Kenneth McKellar (1953)
Estes Kefauver (1955)

TEXAS
Tom Connally (1953)
Lyndon B. Johnson (1955)

UTAH
Arthur V. Watkins (1953)
Wallace F. Bennett (1957)

VERMONT
Ralph E. Flanders (1953)
*George D. Aiken (1957)

VIRGINIA
Harry Flood Byrd (1953)
A. Willis Robertson (1955)

WASHINGTON
Harry P. Cain (1953)
**Warren G. Magnuson* (1957)

WEST VIRGINIA
Harley M. Kilgore (1953)
Matthew M. Neely (1955)

WISCONSIN
Joseph R. McCarthy (1953)
*Alexander Wiley (1957)

WYOMING
Joseph C. O'Mahoney (1953)
Lester C. Hunt (1955)

[1] Appointed Dec. 1949 and elected Nov. 1950 to serve remainder of term of Raymond E. Baldwin (R), who resigned Dec. 1949. [2] Appointed Oct. 1949 and elected Nov. 1950 to serve remainder of term of Bert H. Miller (D), who died Oct. 1949. [3] Elected Nov. 1947 to serve remainder of term of Theodore G. Bilbo (D), who died Aug. 1947. [4] Elected Nov. 1950 to serve remainder of term of J. Melville Broughton (D), who died Mar. 1949. By appointment, Frank Porter Graham (D) served Mar. 1949 to Nov. 1950. [5] Elected Nov. 1950 to serve remainder of term of J. Howard McGrath (D), who resigned Aug. 1949. By appointment, Edward L. Leahy (D) served Aug. 1949 to Nov. 1950. [6] Appointed Mar. 1951 to fill vacancy caused by death of Virgil M. Chapman (D) in Mar. 1951. [7] Appointed Apr. 1951 to fill vacancy caused by death of Arthur H. Vandenberg (R) in Apr. 1951.

THE HOUSE OF REPRESENTATIVES

Democrats are in *italic* type; Republicans in roman; Independent in SMALL CAPS. The numerals indicate the Congressional Districts of the states, and the designation At-L means At-Large. An asterisk (*) indicates that the congressman was returned to office in the election of Nov. 7, 1950. The terms of all representatives end Jan. 3, 1953.

ALABAMA
1. **Frank W. Boykin*
2. **George M. Grant*
3. **George W. Andrews*
4. *Kenneth A. Roberts*
5. **Albert Rains*
6. **Edward deGraffenried*
7. **Carl Elliott*
8. **Robert E. Jones, Jr.*
9. **Laurie C. Battle*

ARIZONA
1. **John R. Murdock*
2. **Harold A. Patten*

ARKANSAS
1. **E. C. Gathings*
2. **Wilbur D. Mills*
3. **James W. Trimble*
4. **Boyd Tackett*
5. **Brooks Hays*
6. **W. F. Norrell*
7. **Oren Harris*

CALIFORNIA
1. *Hubert B. Scudder
2. **Clair Engle*
3. *Leroy Johnson
4. **Franck R. Havenner*
5. **John F. Shelley*
6. **George P. Miller*
7. *John J. Allen, Jr.
8. *Jack Z. Anderson
9. Allan Oakley Hunter
10. *Thomas H. Werdel
11. *Ernest K. Bramblett
12. Patrick J Hillings
13. *Norris Poulson
14. *Samuel W. Yorty*
15. *Gordon L. McDonough
16. *Donald L. Jackson

California—(cont.)
17. *Cecil R. King
18. *Clyde Doyle
19. *Chet Holifield
20. *Carl Hinshaw
21. *Harry R. Sheppard
22. *John Phillips
23. *Clinton D. McKinnon

COLORADO
1. Byron G. Rogers
2. *William S. Hill
3. J. Edgar Chenoweth
4. *Wayne N. Aspinall

CONNECTICUT
1. *Abraham A. Ribicoff
2. Horace Seely-Brown, Jr.
3. * John A. McGuire
4. Albert P. Morano
5. *James T. Patterson
At-L. *Antoni N. Sadlak

DELAWARE
At-L. *J. Caleb Boggs

FLORIDA
1. Chester B. McMullen
2. *Charles E. Bennett
3. *Robert L. F. Sikes
4. William C. Lantaff
5. *A. S. Herlong, Jr.
6. *Dwight L. Rogers

GEORGIA
1. *Prince H. Preston, Jr.
2. *E. E. Cox
3. E. L. Forrester
4. *A. Sidney Camp
5. *James C. Davis
6. *Carl Vinson
7. *Henderson L. Lanham
8. *W. M. (Don) Wheeler
9. *John S. Wood
10. *Paul Brown

IDAHO
1. John T. Wood
2. Hamer H. Budge

ILLINOIS
1. *William L. Dawson
2. Richard B. Vail
3. Fred E. Busbey
4. William E. McVey
5. John C. Kluczynski
6. *Thomas J. O'Brien
7. *Adolph J. Sabath
8. *Thomas S. Gordon

House of Representatives—(cont.)
9. *Sidney R. Yates
10. *Richard W. Hoffman
11. Timothy P. Sheehan
12. *Edgar A. Jonas
13. Marguerite S. Church
14. *Chauncey W. Reed
15. *Noah M. Mason
16. *Leo E. Allen
17. *Leslie C. Arends
18. *Harold H. Velde
19. *Robert B. Chiperfield
20. *Sid Simpson
21. *Peter F. Mack, Jr.
22. William L. Springer
23. *Edward H. Jenison
24. *Charles W. Vursell
25. *Melvin Price
26. *C. W. (Runt) Bishop

INDIANA
1. *Ray J. Madden
2. *Charles A. Halleck
3. Shepard J. Crumpacker, Jr.
4. E. Ross Adair
5. John V. Beamer
6. *Cecil M. Harden
7. William G. Bray
8. *Winfield K. Denton
9. *Earl Wilson
10. *Ralph Harvey
11. Charles B. Brownson

IOWA
1. *Thomas E. Martin
2. *Henry O. Talle
3. *H. R. Gross
4. *Karl M. LeCompte
5. *Paul Cunningham
6. *James I. Dolliver
7. *Ben F. Jensen
8. *Charles B. Hoeven

KANSAS
1. *Albert M. Cole
2. *Errett P. Scrivner
3. Myron V. George
4. *Edward H. Rees
5. *Clifford R. Hope
6. *Wint Smith

KENTUCKY
1. *Noble J. Gregory
2. *John A. Whitaker
3. *Thruston Ballard Morton
4. *Frank L. Chelf
5. *Brent Spence
6. John C. Watts[5]
7. *Carl D. Perkins
8. *Joe B. Bates
9. *James S. Golden

LOUISIANA
1. *F. Edward Hébert
2. *Hale Boggs
3. *Edwin E. Willis
4. *Overton Brooks
5. *Otto E. Passman
6. *James H. Morrison
7. *Henry D. Larcade, Jr.
8. *A. Leonard Allen

MAINE
1. *Robert Hale[1]
2. *Charles P. Nelson[1]
3. Clifford MacIntyre[9]

MARYLAND
1. *Edward T. Miller
2. James P. S. Devereux
3. *Edward A. Garmatz
4. *George H. Fallon
5. *Lansdale G. Sasscer
6. *J. Glenn Beall

MASSACHUSETTS
1. *John W. Heselton
2. *Foster Furcolo
3. *Philip J. Philbin
4. *Harold D. Donohue
5. *Edith Nourse Rogers
6. *William H. Bates
7. *Thomas J. Lane
8. *Angier L. Goodwin
9. *Donald W. Nicholson
10. *Christian A. Herter
11. *John F. Kennedy
12. *John W. McCormack
13. *Richard B. Wigglesworth
14. *Joseph W. Martin, Jr.

MICHIGAN
1. Thaddeus M. Machrowicz
2. George Meader
3. *Paul W. Shafer
4. *Clare E. Hoffman
5. *Gerald R. Ford, Jr.
6. *William W. Blackney
7. *Jesse P. Wolcott
8. *Fred L. Crawford
9. Ruth Thompson
10. *Roy O. Woodruff
11. *Charles E. Potter
12. *John B. Bennett
13. *George D. O'Brien
14. *Louis C. Rabaut
15. *John D. Dingell
16. John Lesinski, Jr.
17. *George A. Dondero

MINNESOTA
1. *August H. Andresen
2. *Joseph P. O'Hara
3. *Roy W. Wier
4. *Eugene J. McCarthy
5. *Walter H. Judd
6. *Fred Marshall
7. *H. Carl Andersen
8. *John A. Blatnik
9. *Harold C. Hagen

MISSISSIPPI

1. *John E. Rankin
2. *Jamie L. Whitten
3. Frank E. Smith
4. *Thomas G. Abernethy
5. *Arthur Winstead
6. *William M. Colmer
7. *John Bell Williams

MISSOURI

1. *Clare Magee
2. *Morgan M. Moulder
3. *Phil J. Welch
4. *Leonard Irving
5. *Richard Bolling
6. O. K. Armstrong
7. *Dewey Short
8. *A. S. J. Carnahan
9. *Clarence Cannon
10. *Paul C. Jones
11. Claude I. Bakewell[4]
12. Thomas B. Curtis
13. *Frank M. Karsten

MONTANA

1. *Mike Mansfield
2. *Wesley A. D'Ewart

NEBRASKA

1. *Carl T. Curtis
2. Howard H. Buffett
3. (Vacant[14])
4. *A. L. Miller

NEVADA

At-L. *Walter S. Baring

NEW HAMPSHIRE

1. *Chester E. Merrow
2. *Norris Cotton

NEW JERSEY

1. *Charles A. Wolverton
2. *T. Millet Hand
3. *James C. Auchincloss
4. *Charles R. Howell
5. *Charles A. Eaton
6. *Clifford P. Case
7. *William B. Widnall
8. *Gordon Canfield
9. Frank C. Osmers, Jr.[12]
10. *Peter W. Rodino, Jr.
11. *Hugh J. Addonizio
12. *Robert W. Kean
13. Alfred D. Sieminski
14. *Edward J. Hart

NEW MEXICO

At-L. *Antonio M. Fernandez
At-L. John J. Dempsey

NEW YORK

1. Ernest Greenwood
2. *Leonard W. Hall
3. *Henry J. Latham
4. *L. Gary Clemente
5. *T. Vincent Quinn
6. *James J. Delaney
7. *Louis B. Heller
8. Victor L. Anfuso
9. *Eugene J. Keogh
10. *Edna F. Kelly
11. *James J. Heffernan
12. *John J. Rooney
13. *Donald L. O'Toole
14. *Abraham J. Multer
15. *Emanuel Celler
16. *James J. Murphy
17. *Frederic R. Coudert, Jr.
18. James G. Donovan
19. *Arthur G. Klein
20. *Franklin D. Roosevelt, Jr.
21. *Jacob K. Javits
22. *Adam C. Powell, Jr.
23. Sidney A. Fine
24. *Isidore Dollinger
25. *Charles A. Buckley
26. *Christopher C. McGrath
27. *Ralph W. Gwinn
28. *Ralph A. Gamble
29. *Katharine St. George
30. J. Ernest Wharton
31. *Bernard W. Kearney
32. *William T. Byrne
33. *Dean P. Taylor
34. *Clarence E. Kilburn
35. William R. Williams
36. *R. Walter Riehlman
37. *Edwin Arthur Hall
38. *John Taber
39. *W. Sterling Cole
40. *Kenneth B. Keating
41. Harold C. Ostertag
42. William E. Miller
43. Edmund P. Radwan
44. John C. Butler
45. *Daniel A. Reed

NORTH CAROLINA

1. *Herbert C. Bonner
2. *John H. Kerr
3. *Graham A. Barden
4. *Harold D. Cooley
5. *Thurmond Chatham
6. *Carl T. Durham
7. *F. Ertel Carlyle
8. *Charles B. Deane
9. *Robert L. Doughton
10. *Hamilton C. Jones
11. *Woodrow W. Jones
12. *Monroe M. Redden

NORTH DAKOTA

At-L. Fred G. Aandahl
At-L. *Usher L. Burdick

OHIO

1. *Charles H. Elston
2. William E. Hess
3. Paul F. Schenck[13]
4. *William M. McCulloch
5. *Cliff Clevenger
6. *James G. Polk
7. *Clarence J. Brown
8. Jackson E. Betts
9. Frazier Reams
10. *Thomas A. Jenkins
11. *Walter E. Brehm
12. *John M. Vorys
13. *Alvin F. Weichel
14. William H. Ayres
15. *Robert T. Secrest
16. Frank T. Bow
17. *J. Harry McGregor
18. *Wayne L. Hays
19. *Michael J. Kirwan
20. *Michael A. Feighan
21. *Robert Crosser
22. *Frances P. Bolton

At-L. George H. Bender

OKLAHOMA

1. George B. Schwabe
2. *William G. Stigler
3. *Carl Albert
4. *Tom Steed
5. John Jarman
6. *Toby Morris
7. *Victor Wickersham
8. Page Belcher

OREGON

1. *Walter Norblad
2. *Lowell Stockman
3. *Homer D. Angell
4. *Harris Ellsworth

PENNSYLVANIA

1. *William A. Barrett
2. *William T. Granahan
3. *Hardie Scott
4. *Earl Chudoff
5. *William J. Green, Jr.
6. *Hugh D. Scott, Jr.
7. *Benjamin F. James
8. Karl C. King[11]
9. *Paul B. Dague
10. *Harry P. O'Neill
11. *Daniel J. Flood
12. *Ivor D. Fenton
13. *George M. Rhodes
14. Joseph Carrigg[8]
15. Alvin R. Bush
16. *Samuel K. McConnell, Jr.
17. *Richard M. Simpson
18. Walter M. Mumma
19. *Leon H. Gavin
20. *Francis E. Walter
21. *James F. Lind
22. *James E. Van Zandt
23. Edward L. Sittler, Jr.
24. *Thomas E. Morgan
25. *Louis E. Graham
26. *John P. Saylor
27. *Augustine B. Kelley
28. *Carroll D. Kearns
29. Harmar D. Denny, Jr.
30. *Robert J. Corbett
31. *James G. Fulton
32. *Herman P. Eberharter
33. Mrs. Frank Buchanan[6]

RHODE ISLAND
1. *Aime J. Forand
2. *John E. Fogarty

SOUTH CAROLINA
1. *L. Mendel Rivers
2. John J. Riley
3. W. J. Bryan Dorn
4. *Joseph R. Bryson
5. *James P. Richards
6. *John L. McMillan

SOUTH DAKOTA
1. *Harold O. Lovre
2. E. Y. Berry

TENNESSEE
1. B. Carroll Reece
2. Howard H. Baker
3. *James B. Frazier, Jr.
4. *Albert Gore
5. *Joseph L. Evins
6. *J. Percy Priest
7. *Pat Sutton
8. *Tom Murray
9. *Jere Cooper
10. *Clifford Davis

TEXAS
1. *Wright Patman
2. *J. M. Combs
3. *Lindley Beckworth
4. *Sam Rayburn
5. *J. Frank Wilson
6. *Olin E. Teague
7. *Tom Pickett

House of Representatives—(cont.)

8. *Albert Thomas
9. *Clark W. Thompson
10. *Homer Thornberry
11. *W. R. Poage
12. *Wingate H. Lucas
13. Frank Ikard[10]
14. *John E. Lyle, Jr.
15. *Lloyd M. Bentsen, Jr.
16. *Ken Regan
17. *Omar Burleson
18. Walter E. Rogers
19. *George H. Mahon
20. *Paul J. Kilday
21. *O. C. Fisher

UTAH
1. *Walter K. Granger
2. *Reva Beck Bosone

VERMONT
At-L. Winston L. Prouty

VIRGINIA
1. *Edward J. Robeson, Jr.
2. *Porter Hardy, Jr.
3. *J. Vaughan Gary
4. *Watkins M. Abbitt
5. *Thomas B. Stanley
6. *Clarence G. Burton
7. *Burr P. Harrison
8. *Howard W. Smith
9. *Tom B. Fugate

WASHINGTON
1. *Hugh B. Mitchell
2. *Henry M. Jackson
3. *Russell V. Mack
4. *Hal Holmes
5. *Walt Horan
6. *Thor C. Tollefson

WEST VIRGINIA
1. *Robert L. Ramsay
2. *Harley O. Staggers
3. *Cleveland M. Bailey
4. *M. G. Burnside
5. Mrs. Maude Elizabeth Kee[7]
6. *E. H. Hedrick

WISCONSIN
1. *Lawrence H. Smith
2. *Glenn R. Davis
3. *Gardner R. Withrow
4. *Clement J. Zablocki
5. Charles J. Kersten
6. William K. Van Pelt
7. *Reid F. Murray
8. *John W. Byrnes
9. *Merlin Hull
10. *Alvin E. O'Konski

WYOMING
At-L. William H. Harrison

ALASKA
*E. L. Bartlett[2]

HAWAII
*Joseph R. Farrington[2]

PUERTO RICO
A. Fernós-Isern[3]

[1] Elected in state election of Sept. 11, 1950. [2] Delegate. Does not have a vote. [3] Resident Commissioner, elected 1948 for 4-year term Popular Democrat. Does not have a vote. [4] Elected Mar. 1951 to serve remainder of term of John B. Sullivan (D), who died Jan. 1951. [5] Elected Apr. 1951 to serve remainder of term of Thomas R. Underwood (D), who was appointed to the Senate Mar. 1951. [6] Elected July 1951 to serve remainder of term of Frank Buchanan (D), who died Apr. 1951. [7] Elected July 1951 to serve remainder of term of John Kee (D), who died May 1951. [8] Elected Nov. 1951 to serve remainder of term of Wilson D. Gillette (R), who died Aug. 1951. [9] Elected Oct. 1951 to serve remainder of term of Frank Fellows (R), who died Aug. 1951. [10] Elected Sept. 1951 to serve remainder of term of Ed Gossett (D), who resigned July 1951. [11] Elected Nov. 1951 to serve remainder of term of Albert C. Vaughan (R), who died Sept. 1951. [12] Elected Nov. 1951 to serve remainder of term of Harry L. Towe (R), who resigned Sept. 1951. [13] Elected Nov. 1951 to serve remainder of term of Edward Breen (D), who resigned Oct. 1951. [14] Vacancy caused by death of Karl Stefan (R) in Oct. 1951.

Congressional Committees

Source: Congressional Directory.

Under the Legislative Reorganization Act of 1946, the number of standing committees of the Senate was reduced from thirty-three to fifteen, and committees of the House of Representatives from forty-five to nineteen. The reduction became effective Jan. 3, 1947.

Committees	Members S	Members H
Agriculture	..	33
Agriculture and Forestry	13	..
Appropriations	21	50
Armed Services	13	38
Banking and Currency	13	27
District of Columbia	13	25
Education and Labor	..	25
Expenditures in Exec. Dept.'s	13	27
Finance	13	..
Foreign Affairs	..	27
Foreign Relations	13	..
House Administration	..	22
Interior and Insular Affairs	13	30
Interstate and Foreign Commerce	13	29
Judiciary	13	29
Labor and Public Welfare	13	..
Merchant Marine and Fisheries	..	28
P. O. and Civil Service	13	24
Public Works	13	26
Rules	..	12
Rules and Administration	13	..
Un-American Activities	..	9
Veterans' Affairs	..	22
Ways and Means	..	25

UNITED STATES STATISTICS

Geographic Data

Source: U. S. Coast and Geodetic Survey.

Highest point: Mt. Whitney, Calif.*	14,495 ft.
Lowest point: Death Valley, Calif.*	280 ft. below sea level
Most northern point: Lake of the Woods projection, Minn.	49° 23′ 04.5″ N. lat.
Most southern point: Cape Sable, Fla.	25° 07′ N. lat.
Most eastern point: West Quoddy Head, Maine	66° 57′ W. long.
Most western point: Cape Alava, Wash.	124° 44′ W. long.
Places farthest apart: Point Arena, Calif., to West Quoddy Head, Maine	2,897 mi.
Geographic center: near Lebanon, Smith County, Kans.	39° 50′ N. lat. 98° 35′ W. long.
Northern boundary: Canada and Great Lakes	3,987 mi.
Southern boundary: Mexico	2,013 mi.

* The highest and lowest points in the U. S. are 86 mi. apart.

Territorial Expansion of the United States

Accession	Date	Area, sq. mi.[1]
CONTINENTAL UNITED STATES		
Territory in 1790[2]	....	888,811
Louisiana Purchase	1803	827,192
Florida	1819	58,560
By treaty with Spain	1819	13,443
Texas	1845	390,144
Oregon	1846	285,580
Mexican Cession	1848	529,017
Gadsden Purchase	1853	29,640
Total	....	3,022,387
OUTLYING TERRITORY[3]		
Alaska Territory	1867	586,400
Hawaii Territory[4]	1898	6,454
Puerto Rico	1899	3,435
Guam	1899	206
American Samoa	1900	76
Panama Canal Zone	1904	553
Virgin Islands of U. S.	1917	133
Trust territory[5]	1947	846
Total	....	598,103
Aggregate	....	3,620,490

[1] Total land and inland water area.

[2] Includes drainage basin of Red River of the North, not part of any accession, but in the past sometimes considered a part of the Louisiana Purchase.

[3] The Philippine Islands, acquired in 1899, became independent on July 4, 1946.

[4] Includes Baker, Canton, Enderbury, Howland, Jarvis, Johnston, and Midway Islands; also certain other outlying islands (21 sq. mi.).

[5] Consists of the Marianas, Caroline, and Marshall Islands, formerly held by Japan under mandate.

Sources: U. S. Bureau of the Census.

U. S. Water Area Other Than Inland Water

	Sq. mi.
Atlantic Ocean	2,298
Chesapeake Bay	3,237
Delaware Bay	665
Erie, Lake	5,002
Georgia and Juan de Fuca, Straits of	1,610
Huron, Lake	8,975
Long Island Sound	1,299
Mexico, Gulf of	3,837
Michigan, Lake	22,178
New York Harbor	92
Ontario, Lake	3,033
Pacific Ocean	343
Puget Sound	561
St. Clair, Lake	116
Superior, Lake	21,118
Total	74,364

U. S. Population and Area

Census	Population of continental U. S.	Increase over the preceding census: Number	Per cent	Land area, sq. mi.	Pop. per sq. mi.
1790...	3,929,214	.....	....	867,980	4.5
1800...	5,308,483	1,379,269	35.1	867,980	6.1
1810...	7,239,881	1,931,398	36.4	1,685,865	4.3
1820...	9,638,453	2,398,572	33.1	1,753,588	5.5
1830...	12,866,020	3,227,567	33.5	1,753,588	7.3
1840...	17,069,453	4,203,433	32.7	1,753,588	9.7
1850...	23,191,876	6,122,423	35.9	2,944,337	7.9
1860...	31,443,321	8,251,445	35.6	2,97 ,965	10.6
1870...	39,818,449	8,375,128	26.6	2,973,965	13.4
1880...	50,155,783	10,337,334	26.0	2,973,965	16.9
1890...	62,947,714	12,791,931	25.5	2,973,965	21.2
1900...	75,994,575	13,046,861	20.7	2,974,159	25.6
1910...	91,972,266	15,977,691	21.0	2,973,890	30.9
1920...	105,710,620	13,738,354	14.9	2,973,776	35.5
1930...	122,775,046	17,064,426	16.1	2,977,128	41.2
1940...	131,669,275	8,894,229	7.2	2,977,128	44.2
1950...	150,697,361	19,028,086	14.5	2,977,128	50.6

Highest, Lowest, and Average Altitudes in the United States

Source: U. S. Geological Survey.

State	Average elevation, ft.	Highest point	Elevation, ft.	Lowest point	Elevation, ft.
Alabama	500	Cheaha Mountain	2,407	Gulf of Mexico	Sea level
Arizona	4,100	Humphreys Peak	12,655	Colorado River	100
Arkansas	650	Blue Mountain Magazine Mountain	2,800	Ouachita River	55
California	2,900	Mount Whitney	14,495	Death Valley	280*
Colorado	6,800	Mount Elbert	14,431	Arkansas River	3,350
Connecticut	500	N. Bdy.-Mt. Frissell	2,380	Long Island Sound	Sea level
Delaware	60	Centerville	440	Atlantic Ocean	Sea level
D. C.	150	Tenleytown	420	Potomac River	Sea level
Florida	100	Sec. 30, T6N. R20W.	345	Atlantic Ocean	Sea level
Georgia	600	Brasstown Bald	4,784	Atlantic Ocean	Sea level
Idaho	5,000	Borah Peak	12,655	Snake River	720
Illinois	600	Charles Mound	1,241	Mississippi River	279
Indiana	700	Greensfork Township	1,240	Ohio River	320
Iowa	1,100	In Osceola County	1,675	Mississippi River	480
Kansas	2,000	In T15S R43W	4,135	Verdigris River	700
Kentucky	750	Big Black Mountain	4,150	Mississippi River	257
Louisiana	100	Driskill Mountain	535	New Orleans	5*
Maine	600	Mount Katahdin	5,268	Atlantic Ocean	Sea level
Maryland	350	Backbone Mountain	3,360	Atlantic Ocean	Sea level
Massachusetts	500	Mount Greylock	3,491	Atlantic Ocean	Sea level
Michigan	900	Porcupine Mountains	2,023	Lake Erie	572
Minnesota	1,200	Misquah Hills	2,230	Lake Superior	602
Mississippi	300	Woodall Mountain	806	Gulf of Mexico	Sea level
Missouri	800	Taum Sauk Mountain	1,772	St. Francis River	230
Montana	3,400	Granite Peak	12,850	Kootenai River	1,800
Nebraska	2,600	Epworth Township	5,340	Southeast corner of State	840
Nevada	5,500	Boundary Peak, White Mountains	13,145	Colorado River	470
New Hampshire	1,000	Mount Washington	6,288	Atlantic Ocean	Sea level
New Jersey	250	High Point	1,801	Atlantic Ocean	Sea level
New Mexico	5,700	Wheeler Peak	13,151	Red Bluff Reservoir	2,817
New York	1,000	Mount Marcy	5,344	Atlantic Ocean	Sea level
North Carolina	700	Mount Mitchell	6,684	Atlantic Ocean	Sea level
North Dakota	1,900	Black Butte	3,468	Red River	750
Ohio	850	Campbell Hill	1,550	Ohio River	433
Oklahoma	1,300	Black Mesa	4,978	Red River	300
Oregon	3,300	Mount Hood	11,245	Pacific Ocean	Sea level
Pennsylvania	500	Mt. Davis, Negro Mountains	3,213	Delaware River	Sea level
Rhode Island	200	Jerimoth Hill	812	Atlantic Ocean	Sea level
South Carolina	350	Sassafras Mountain	3,560	Atlantic Ocean	Sea level
South Dakota	2,200	Harney Peak	7,242	Big Stone Lake	962
Tennessee	900	Clingmans Dome	6,642	Mississippi River	182
Texas	1,700	Guadalupe Peak	8,751	Gulf of Mexico	Sea level
Utah	6,100	Kings Peak	13,498	Beaverdam Creek	2,000
Vermont	1,000	Mount Mansfield	4,393	Lake Champlain	95
Virginia	950	Mount Rogers	5,720	Atlantic Ocean	Sea level
Washington	1,700	Mount Rainier	14,408	Pacific Ocean	Sea level
West Virginia	1,500	Spruce Knob	4,860	Potomac River	240
Wisconsin	1,050	Sugarbush Hill	1,951	Lake Michigan	581
Wyoming	6,700	Gannett Peak	13,785	Belle Fourche River	3,100

* Below sea level.

Forest Resources of the United States

Source: U. S. Forest Service.

The forests of the United States include over 800 different kinds of trees and still cover millions of acres. But since the days when half of the United States was forest, the amount of commercial forest land has decreased by about half, and the condition of many of the remaining forests has deteriorated badly, necessitating a forest rehabilitation program.

United States Forest Land, 1950

(in acres)

Old growth	44,307,000
Second-growth saw timber	154,597,000
Pole timber	104,799,000
Seedling and sapling area	81,076,000
Poorly stocked and denuded area	74,762,000
Total	459,541,000

Mountain Peaks in the U. S. Over 14,000 Feet Above Sea Level

Source: U. S. Geological Survey.

Mountain	State	County	Height, feet
Mt. Whitney	California	Tulare-Inyo	14,495
Mt. Elbert	Colorado	Lake	14,431
Mt. Massive	Colorado	Lake	14,418
Mt. Rainier	Washington	Pierce	14,408
Mt. Harvard	Colorado	Chaffee	14,399
Mt. Williamson	California	Inyo	14,384
La Plata Peak	Colorado	Chaffee	14,340
Blanca Peak	Colorado	Costilla-Huerfano-Alamosa	14,317
Uncompahgre Peak	Colorado	Hinsdale	14,301
Crestone Peak	Colorado	Custer-Saguache	14,291
Mt. Lincoln	Colorado	Park	14,284
Grays Peak	Colorado	Clear Creek-Summit	14,274
Torreys Peak	Colorado	Clear Creek-Summit	14,264
Mt. Evans	Colorado	Clear Creek	14,260
Castle Peak	Colorado	Gunnison-Pitkin	14,259
Longs Peak	Colorado	Boulder	14,255
Quandary Peak	Colorado	Summit	14,252
Mt. Wilson	Colorado	Dolores	14,250
North Palisade	California	Fresno	14,245
Mt. Antero	Colorado	Chaffee	14,242
White Mountain	California	Alpine-Mono	14,242
Mt. Cameron	Colorado	Park	14,238
Mt. Russell	California	Inyo	14,190
Shavano Peak	Colorado	Chaffee	14,179
Mt. Princeton	Colorado	Chaffee	14,177
Mt. Yale	Colorado	Chaffee	14,172
Mt. Bross	Colorado	Park	14,169
Mt. Sill	California	Fresno	14,162
Mt. Shasta	California	Siskiyou	14,161
Maroon Peak	Colorado	Pitkin	14,158
Point Success	Washington	Pierce	14,150
San Luis Peak	Colorado	Saguache	14,149
Mt. Sneffels	Colorado	Ouray	14,143
Mt. Democrat	Colorado	Park-Lake	14,142
Crestone Needle	Colorado	Custer-Saguache	14,130
Old Baldy	Colorado	Costilla	14,125
Liberty Cap	Washington	Pierce	14,112
Pikes Peak	Colorado	El Paso	14,109
Kit Carson Peak	Colorado	Saguache	14,100
Humboldt Peak	Colorado	Custer	14,100
Windom Peak	Colorado	La Plata	14,091
Mt. Eolus	Colorado	La Plata	14,086
Snowmass Mountain	Colorado	Pitkin-Gunnison	14,077
Mt. Columbia	Colorado	Chaffee	14,070
Culebra Peak	Colorado	Costilla-Las Animas	14,069
Sunlight Peak	Colorado	La Plata	14,060
Split Mountain	California	Fresno-Inyo	14,058
Redcloud Peak	Colorado	Hinsdale	14,050
Mt. Bierstadt	Colorado	Clear Creek	14,046
Mt. Langley	California	Tulare	14,042
Middle Palisade	California	Fresno	14,040
Little Bear Peak	Colorado	Costilla	14,040
Mt. Sherman	Colorado	Park-Lake	14,037
Stewart Peak	Colorado	Saguache	14,032
Wilson Peak	Colorado	San Miguel	14,026
Mt. Muir	California	Tulare	14,025
Mt. Tyndall	California	Tulare	14,025
Sunshine Peak	Colorado	Hinsdale	14,018
Wetterhorn Peak	Colorado	Hinsdale-Ouray	14,017
Handies Peak	Colorado	Hinsdale	14,013
North Maroon Peak	Colorado	Pitkin	14,010
Mt. Barnard	California	Tulare-Inyo	14,003
Pyramid Peak	Colorado	Pitkin	14,000

Rivers of the U. S.

(300 or more miles long)

ALABAMA (315 mi.): From junction of Tallapoosa R. and Coosa R. in Alabama to junction with Tombigbee R. to form Mobile R. and Tensaw R.

ALLEGHENY (325 mi.): From Potter Co. in Pennsylvania to junction with Monongahela R. at Pittsburgh to form Ohio R.

ARKANSAS (1,450 mi.): From Lake Co. in Colorado to Mississippi R. in Arkansas.

BIG BLACK (330 mi.): From Webster Co. in Mississippi to Mississippi R.

BIGHORN (336 mi.): From junction of Popo Agie R. and Wind R. in Wyoming to Yellowstone R. in Montana.

BRAZOS (870 mi.): From junction of Salt Fork and Clear Fork in Texas to Gulf of Mexico.

CANADIAN (906 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CEDAR (329 mi.): From south central Minnesota to Iowa R. in Iowa.

CHATTAHOOCHEE (410 mi.): From Towns Co. in Georgia to junction with Flint R. to form Apalachicola R.

CIMARRON (600 mi.): From Colfax Co. in New Mexico to Arkansas R. in Oklahoma.

CLARK FORK (c. 300 mi.): From Silver Bow Co. in Montana to Pend Oreille Lake in Idaho.

COLORADO (1,450 mi.): From Grand Co. in Colorado to Gulf of California in Mexico.

COLORADO (840 mi.): From Dawson Co. in Texas to Matagorda Bay.

COLUMBIA (1,270 mi.): From Columbia Lake in British Columbia to Pacific Ocean between Oregon and Washington.

CONNECTICUT (407 mi.): From Connecticut Lakes in New Hampshire to Long Island Sound in Connecticut.

CUMBERLAND (687 mi.): From junction of forks in Harlan Co. in Kentucky to Ohio R.

DAKOTA (Sometimes called JAMES) (710 mi.): From Wells Co. in North Dakota to Missouri R. in South Dakota.

DES MOINES (327 mi.): From junction of forks in Humboldt Co. in Iowa to Mississippi R.

GILA (c. 630 mi.): From southwest New Mexico to Colorado R. in Arizona.

GREEN (360 mi.): From Lincoln Co. in Kentucky to Ohio R. in Indiana.

GREEN (730 mi.): From Sublette Co. in Wyoming to Colorado R. in Utah.

HUDSON (306 mi.): From Essex Co. in New York to Upper New York Bay between New York and New Jersey.

JAMES (340 mi.): From junction of Jackson R. and Cowpasture R. in Virginia to Chesapeake Bay.

LITTLE COLORADO (300 mi.): From Apache Co. in Arizona to Colorado R.

LITTLE MISSOURI (560 mi.): From northeast Wyoming to Missouri R. in North Dakota.

MILK (625 mi.): From Glacier Co. in Montana to Missouri R.

MINNESOTA (332 mi.): From Big Stone Lake between Minnesota and South Dakota to Mississippi R. at St. Paul.

MISSISSIPPI (2,470 mi.): From Lake Itasca in Minnesota to Gulf of Mexico in Louisiana.

MISSOURI (2,475 mi.): From junction of Jefferson R., Madison R., and Gallatin R. in Montana to Mississippi R. near St. Louis.

NEOSHO (460 mi.): From Morris Co. in Kansas to Arkansas R. in Oklahoma.

NIOBRARA (431 mi.): From Niobrara Co. in Wyoming to Missouri R. in Nebraska.

NORTH CANADIAN (760 mi.): From Union Co. in New Mexico to Canadian R. in Oklahoma.

NORTH PLATTE (618 mi.): From Jackson Co. in Colorado to junction with So. Platte R. in Nebraska to form Platte R.

NUECES (338 mi.): From near Edwards-Real Co. border in Texas to Nueces Bay.

OHIO (981 mi.): From junction of Allegheny R. and Monongahela R. at Pittsburgh to Mississippi R. between Illinois and Kentucky.

OSAGE (500 mi.): From junction of Elm Creek and Onion Creek in Kansas to Missouri R. in Missouri.

OUACHITA (605 mi.): From Polk Co. in Arkansas to Black R. in Louisiana.

PEARL (490 mi.): From Neshoba Co. in Mississippi to Gulf of Mexico between Mississippi and Louisiana.

PECOS (735 mi.): From Mora Co. in New Mexico to Rio Grande in Texas.

PLATTE (310 mi.): From junction of North Platte R. and South Platte R. in Nebraska to Missouri below Omaha.

PLATTE (c. 300 mi.): From Union Co. in Iowa to Missouri R. in Missouri.

POWDER (375 mi.): From junction of forks in Johnson Co. in Wyoming to Yellowstone R. in Montana.

RED (1,018 mi.): From junction of forks in Tillman Co. in Oklahoma to Mississippi R. in Louisiana.

RED (Sometimes called RED RIVER OF THE NORTH) (c. 310 mi.): From junction of Otter Tail R. and Bois de Sioux R. in Minnesota to Lake Winnipeg in Manitoba.

REPUBLICAN (445 mi.): From eastern Colorado to junction with Smoky Hill R. in Kansas to form Kansas R.

RIO GRANDE (1,800 mi.): From San Juan Co. in Colorado to Gulf of Mexico between Texas and Mexico.

ROANOKE (380 mi.): From junction of forks in Montgomery Co. in Virginia to Albemarle Sound in North Carolina.

ROCK (300 mi.): From Washington Co. in Wisconsin to Mississippi R. in Illinois.

SABINE (380 mi.): From junction of forks in Hunt Co. in Texas to Sabine Lake between Texas and Louisiana.

SACRAMENTO (382 mi.): From Siskiyou Co. in California to Suisun Bay.

SAINT FRANCIS (425 mi.): From Iron Co. in Missouri to Mississippi R. in Arkansas.

SALMON (420 mi.): From Custer Co. in Idaho to Snake R.

SAN JOAQUIN (350 mi.): From junction of forks in Madera Co. in California to Sacramento R.

SAN JUAN (360 mi.): From Archuleta Co. in Colorado to Colorado R. in Utah.

SAVANNAH (314 mi.): From junction of Tugaloo R. and Seneca R. in South Carolina to Atlantic Ocean between Georgia and South Carolina.

SMOKY HILL (540 mi.): From Cheyenne Co. in Colorado to junction with Republican R. in Kansas to form Kansas R.

SNAKE (1,038 mi.): From Yellowstone National Park in Wyoming to Columbia R. in Washington.

SOUTH PLATTE (424 mi.): From Park Co. in Colorado to junction with North Platte R. in Nebraska to form Platte R.

SUSQUEHANNA (444 mi.): From Otsego Co. in New York to Chesapeake Bay in Maryland.

TALLAHATCHIE (301 mi.): From Tippah Co. in Mississippi to junction with Yalobusha R. to form Yazoo R.

TENNESSEE (652 mi.): From junction of Holston R. and French Broad R. near Knoxville to Ohio R. in Kentucky.

TOMBIGBEE (409 mi.): From junction of forks near Amory, Mississippi, to junction with Alabama R. in Alabama to form Mobile R. and Tensaw R.

TRINITY (360): From junction of forks in Kaufman Co. in Texas to Galveston Bay.

WABASH (475 mi.): From Darke Co. in Ohio to Ohio R. between Illinois and Indiana.

WASHITA (500 mi.): From Hemphill Co. in Texas to Red R. in Oklahoma.

WHITE (690 mi.): From Madison Co. in Arkansas to Mississippi R.

WISCONSIN (430 mi.): From Vilas Co. in Wisconsin to Mississippi R.

YELLOWSTONE (671 mi.): From Park Co. in Wyoming to Missouri R. in North Dakota.

Abbreviations of the States

Alabama	Ala.
Arizona	Ariz.
Arkansas	Ark.
California	Calif., Cal.
Colorado	Colo., Col.
Connecticut	Conn.
Delaware	Del.
District of Columbia	D. C.
Florida	Fla.
Georgia	Ga.
Idaho	(none), Ida., Id.
Illinois	Ill.
Indiana	Ind.
Iowa	(none), Ia.
Kansas	Kans., Kan.
Kentucky	Ky.
Louisiana	La.
Maine	(none), Me.
Maryland	Md.
Massachusetts	Mass.
Michigan	Mich.
Minnesota	Minn.
Mississippi	Miss.
Missouri	Mo.
Montana	Mont.
Nebraska	Nebr., Neb.
Nevada	Nev.
New Hampshire	N. H.
New Jersey	N. J.
New Mexico	N. Mex., N. M.
New York	N. Y.
North Carolina	N. C.
North Dakota	N. Dak., N. D.
Ohio	(none), O.
Oklahoma	Okla.
Oregon	Oreg., Ore.
Pennsylvania	Pa., Penn., Penna.
Rhode Island	R. I.
South Carolina	S. C.
South Dakota	S. Dak., S. D.
Tennessee	Tenn.
Texas	Tex.
Utah	(none), Ut.
Vermont	Vt.
Virginia	Va.
Washington	Wash.
West Virginia	W. Va.
Wisconsin	Wis., Wisc.
Wyoming	Wyo., Wy.

NOTE: Where more than one abbreviation is given, the first is the one preferred by the U. S. Post Office Department for use in addresses. The designation (*none*) means the Department prefers the state not be abbreviated.

Climate of Selected U. S. Cities

Source: U. S. Weather Bureau.

State and city	Average mean temperature, F.			Average annual precipitation, inches	Average annual snowfall, inches	Average annual % possible sunshine	Average annual relative humidity
	Jan.	July	Annual				
Alabama: Mobile	52.2	81.8	67.6	62.46	0.2	64	77
Montgomery	49.2	81.6	65.8	51.56	.7	64	72
Arizona: Phoenix	51.8	90.5	70.4	7.66	Trace	85	42
Arkansas: Little Rock	43.0	82.3	62.4	48.25	4.7	62	71
California: Fresno	46.1	82.0	63.3	9.41	.1	78	56
Los Angeles	55.4	70.6	63.0	15.13	Trace	72	68
San Francisco	47.8	60.8	55.7	17.52	Trace	66	78
Colorado: Denver	30.6	72.5	50.5	14.00	55.3	67	53
D.C.: Washington	34.7	77.1	55.6	42.06	20.3	57	67
Florida: Jacksonville	56.2	81.9	69.4	51.45	Trace	62	76
Miami	68.3	81.5	75.1	55.56	Trace	67	77
Georgia: Atlanta	43.6	78.6	61.5	48.57	2.2	61	69
Idaho: Boise	26.7	74.1	50.8	11.73	20.3	64	59
Illinois: Chicago	25.0	73.3	49.5	32.94	33.4	59	72
Indiana: Indianapolis	28.4	75.7	52.7	39.90	20.7	57	70
Iowa: Des Moines	21.2	76.1	50.0	31.77	32.3	60	72
Kansas: Wichita	31.9	80.0	56.6	30.33	14.0	68	66
Kentucky: Louisville	34.8	78.5	57.0	42.76	13.5	58	69
Louisiana: New Orleans	55.1	82.6	69.7	60.46	.2	59	78
Maine: Eastport	21.1	60.4	41.9	39.03	70.9	50	79
Massachusetts: Boston	28.6	72.2	50.0	40.51	43.0	57	67
Michigan: Detroit	25.1	72.7	48.7	31.65	39.2	52	71
Sault Ste. Marie	14.5	64.0	39.8	30.06	82.7	45	77
Minnesota: Minneapolis	13.8	73.1	45.0	26.79	41.4	56	68
Mississippi: Vicksburg	48.6	81.3	65.8	51.70	1.7	62	74
Missouri: Kansas City	29.9	79.3	55.4	36.32	20.8	64	66
St. Louis	32.4	79.8	56.6	39.27	17.4	59	67
Montana: Helena	20.0	67.7	43.7	12.63	54.5	58	59
Miles City	17.1	74.3	45.9	13.17	32.2	63	62
Nebraska: North Platte	23.8	74.9	49.5	18.30	25.4	68	67
Omaha	22.2	77.4	51.1	27.88	28.3	62	67
Nevada: Winnemucca	27.9	71.9	48.8	8.54	28.1	73	51
New Jersey: Atlantic City	34.0	72.9	53.0	41.02	14.9	60	78
New Mexico: Albuquerque	33.8	77.8	56.0	8.91	9.2	76	46
New York: Albany	23.7	72.4	48.3	36.77	50.4	53	69
New York	31.6	74.4	52.7	42.87	30.8	60	70
Rochester	25.1	71.4	47.8	32.86	75.1	51	74
North Carolina: Asheville	39.1	73.1	55.8	38.19	11.1	57	76
Raleigh	42.4	78.6	60.4	46.62	7.3	60	72
North Dakota: Eismarck	8.2	70.6	41.1	16.40	34.8	58	66
Ohio: Cleveland	24.7	71.9	48.7	33.82	41.4	51	71
Oklahoma: Oklahoma City	37.4	81.3	60.2	31.86	7.8	67	66
Oregon: Portland	39.3	67.6	53.7	42.13	12.7	46	76
Pennsylvania: Harrisburg	30.5	75.1	52.6	37.62	31.6	56	67
Pittsburgh	31.1	74.3	52.6	36.10	34.2	49	68
South Carolina: Charleston	50.6	81.6	66.2	47.54	.2	66	77
South Dakota: Huron	12.6	73.0	44.5	19.50	29.0	62	69
Tennessee: Nashville	39.4	79.4	59.4	46.47	8.2	59	70
Texas: Amarillo	33.1	75.9	54.6	20.99	20.6	77	59
El Paso	44.7	81.9	63.8	8.76	2.5	80	40
Fort Worth	46.0	84.0	65.7	32.22	2.6	67	65
Houston	53.5	83.2	69.3	46.13	.2	59	75
Utah: Salt Lake City	29.1	75.7	52.0	16.07	54.4	69	57
Vermont: Burlington	18.6	70.0	44.7	32.20	65.1	46	75
Virginia: Norfolk	41.9	78.5	59.8	45.26	9.1	61	72
Richmond	38.3	78.0	58.4	41.84	12.7	60	72
Washington: Seattle	40.2	64.4	52.0	33.60	11.7	43	76
Spokane	26.9	70.3	48.4	16.05	37.2	58	65
West Virginia: Parkersburg	33.6	75.3	54.4	39.12	24.8	48	74
Wisconsin: Madison	17.6	72.6	46.1	31.18	37.8	53	72
Wyoming: Cheyenne	25.9	67.4	44.9	14.86	57.3	66	56

Coastline of the United States

Source: U. S. Coast and Geodetic Survey.

State	Lengths in statute miles		
	General coastline*	Tidal shoreline, general†	Tidal shoreline, detailed‡
Maine	228	676	3,478
New Hampshire	13	14	131
Massachusetts	192	453	1,519
Rhode Island	40	156	384
Connecticut	...	96	618
New York	127	473	1,850
New Jersey	130	398	1,792
Pennsylvania	...	...	89
Delaware	28	79	381
Maryland	31	452	3,190
Virginia	112	557	3,315
North Carolina	301	1,030	3,375
South Carolina	187	758	2,876
Georgia	100	603	2,344
Florida (Atlantic)	399	618	3,035
Total Atlantic coast	1,888	6,370	28,377
Florida (Gulf)	798	1,658	5,391
Alabama	53	199	607
Mississippi	44	55	359
Louisiana	397	985	7,721
Texas	367	1,100	3,359
Total Gulf coast	1,659	4,097	17,437
California	840	1,190	3,427
Oregon	296	312	1,410
Washington	157	908	3,026
Total Pacific coast	1,293	2,410	7,863
Total U. S.	4,840	12,877	53,677

* Figures are lengths of general outline of seacoast. Measurements made with unit measure of 30 minutes of latitude on charts as near scale of 1:1 200,000 as possible. Shoreline of bays and sounds is included to point where they narrow to width of unit measure, and distance across at such point is included. † Measurements made with unit measure of 3 statute miles on charts of 1:200,000 and 1:400,000 scale when available. Shoreline of bays, sounds and other bodies of water included to point where they narrow to width of 3 statute miles, and distance across at such point is included. ‡ Figures obtained in 1939-40 with recording measure on largest scale maps and charts then available. Shoreline of bays, sounds and other bodies of water included to head of tide-water, or to point where they narrow to width of 100 feet.

Arrival and Departure of Aliens

Source: Immig. & Naturalization Service.

Year	Aliens admitted*	Aliens departed†	Excess of admissions	Aliens debarred	Aliens deported
1920	621,576	428,062	193,514	11,795	2,762
1921	978,163	426,331	552,132	13,779	4,517
1922	432,505	345,334	87,121	13,731	4,345
1923	673,406	200,586	472,820	20,619	3,661
1924	879,302	216,745	662,557	30,284	6,409
1925	458,435	225,490	232,945	25,390	9,495
1926	496,106	227,755	268,351	20,550	10,904
1927	538,001	253,508	284,493	19,755	11,662
1928	500,631	274,356	226,275	18,839	11,825
1929	479,327	252,498	226,829	18,127	12,908
1930	446,214	272,425	173,789	8,233	16,631
1931	280,679	290,916	—10,237	9,744	18,142
1932	174,871	287,657	—112,786	7,064	19,426
1933	150,728	243,802	—93,074	5,527	19,865
1934	163,904	177,172	—13,268	5,384	8,879
1935	179,721	189,050	—9,329	5,558	8,319
1936	190,899	193,284	—2,385	7,000	9,195
1937	231,884	224,582	7,302	8,076	8,829
1938	252,697	222,614	30,083	8,066	9,275
1939	268,331	201,409	66,922	6,498	8,202
1940	208,788	166,164	42,624	5,300	6,954
1941	151,784	88,477	63,307	2,929	4,407
1942	111,238	74,552	36,686	1,833	3,709
1943	104,842	58,722	46,120	1,495	4,207
1944	142,192	84,409	57,783	1,642	7,179
1945	202,365	93,362	109,004	2,341	11,270
1946	312,190	204,353	107,837	2,942	14,375
1947	513,597	323,422	190,175	4,771	18,663
1948	648,576	448,218	198,358	4,905	20,371
1949	635,589	430,089	205,500	3,834	20,040
1950	676,024	456,689	219,335	3,571	6,528

* Immigrants and nonimmigrants.
† Emigrants and nonemigrants.

Estimated Population of the U. S., 1940-51

Date	Civilian only	Including armed forces in U. S.	Including armed forces overseas	Date	Civilian only	Including armed forces in U. S.	Including armed forces overseas
Apr. 1, 1940	31,391,000[1]	131,683,275[2]	131,820,000[3]	July 1, 1946	138,394,000	139,893,000	141,398,000
July 1, 1940	31,642,000	131,936,000	132,114,000	Jan. 1, 1947	140,968,000	141,886,000	142,823,000
Jan. 1, 1941	131,874,000	132,536,000	132,776,000	July 1, 1947	142,595,000	143,375,000	144,123,000
July 1, 1941	132,556,000	133,058,000	133,377,000	Jan. 1, 1948	144,058,000	144,868,000	145,468,000
Jan. 1, 1942	131,976,000	133,692,000	134,135,000	July 1, 1948	145,171,000	146,045,000	146,621,000
July 1, 1942	130,854,000	133,752,000	134,831,000	Jan. 1, 1949	146,330,000	147,370,000	147,975,000
Jan. 1, 1943	128,779,000	134,032,000	135,838,000	July 1, 1949	147,512,000	148,558,000	149,149,000
July 1, 1943	127,415,000	133,971,000	136,719,000	Jan. 1, 1950	148,991,000	150,039,000	150,563,000
Jan. 1, 1944	127,141,000	133,585,000	137,641,000	Apr. 1, 1950	149,634,000[1]	150,697,361[2]	151,132,000[3]
July 1, 1944	126,606,000	132,622,000	138,390,000	July 1, 1950	150,208,000	151,240,000	151,689,000
Jan. 1, 1945	127,198,000	131,824,000	139,234,000	Jan. 1, 1951	150,659,000	152,365,000	153,085,000
July 1, 1945	127,571,000	132,137,000	139,934,000	July 1, 1951	.....	.....	154,353,000
Jan. 1, 1946	133,842,000	136,923,000	140,666,000				

[1] Census figure minus estimate of armed forces in continental U. S. [2] Census figure. [3] Census figure plus estimate of armed forces overseas. NOTE: All estimated figures are provisional. Figures for dates between the 1940 and 1950 Censuses have been revised from those earlier issued. *Source:* U. S. Bureau of the Census.

U. S. Population by States, 1790 to 1950

Source: U. S. Bureau of the Census.

State	1790	1800	1810	1820	1830	1840
Alabama	.....	.....	.....	127,901	309,527	590,756
Arkansas	.....	.....	1,062	14,273	30,388	97,574
Connecticut	237,946	251,002	261,942	275,248	297,675	309,978
Delaware	59,096	64,273	72,674	72,749	76,748	78,085
D. C.	.....	14,093	24,023	33,039	39,834	43,712
Florida	.....	.....	.....	.....	34,730	54,477
Georgia	82,548	162,686	252,433	340,989	516,823	691,392
Illinois	.....	.....	12,282	55,211	157,445	476,183
Indiana	.....	5,641	24,520	147,178	343,031	685,866
Iowa	.....	.....	.....	.....	.....	43,112
Kentucky	73,677	220,955	406,511	564,317	687,917	779,828
Louisiana	.....	.....	76,556	153,407	215,739	352,411
Maine	96,540	151,719	228,705	298,335	399,455	501,793
Maryland	319,728	341,548	380,546	407,350	447,040	470,019
Massachusetts	378,787	422,845	472,040	523,287	610,408	737,699
Michigan	.....	.....	4,762	8,896	31,639	212,267
Mississippi	.....	8,850	40,352	75,448	136,621	375,651
Missouri	.....	.....	19,783	66,586	140,455	383,702
New Hampshire	141,885	183,858	214,460	244,161	269,328	284,574
New Jersey	184,139	211,149	245,562	277,575	320,823	373,306
New York	340,120	589,051	959,049	1,372,812	1,918,608	2,428,921
North Carolina	393,751	478,103	555,500	638,829	737,987	753,419
Ohio	.....	45,365	230,760	581,434	937,903	1,519,467
Pennsylvania	434,373	602,365	810,091	1,049,458	1,348,233	1,724,033
Rhode Island	68,825	69,122	76,931	83,059	97,199	108,830
South Carolina	249,073	345,591	415,115	502,741	581,185	594,398
Tennessee	35,691	105,602	261,727	422,823	681,904	829,210
Vermont	85,425	154,465	217,895	235,981	280,652	291,948
Virginia	747,610	880,200	974,600	1,065,366	1,211,405	1,239,797
Wisconsin	.....	.....	.....	.....	.....	30,945

State	1850	1860	1870	1880	1890	1900
Alabama	771,623	964,201	996,992	1,262,505	1,513,401	1,828,697
Arizona	.....	.....	9,658	40,440	88,243	122,931
Arkansas	209,897	435,450	484,471	802,525	1,128,211	1,311,564
California	92,597	379,994	560,247	864,694	1,213,398	1,485,053
Colorado	.....	34,277	39,864	194,327	413,249	539,700
Connecticut	370,792	460,147	537,454	622,700	746,258	908,420
Delaware	91,532	112,216	125,015	146,608	168,493	184,735
D. C.	51,687	75,080	131,700	177,624	230,392	278,718
Florida	87,445	140,424	187,748	269,493	391,422	528,542
Georgia	906,185	1,057,286	1,184,109	1,542,180	1,837,353	2,216,331
Idaho	.....	.....	14,999	32,610	88,548	161,772
Illinois	851,470	1,711,951	2,539,891	3,077,871	3,826,352	4,821,550
Indiana	988,416	1,350,428	1,680,637	1,978,301	2,192,404	2,516,462
Iowa	192,214	674,913	1,194,020	1,624,615	1,912,297	2,231,853
Kansas	.....	107,206	364,399	996,096	1,428,108	1,470,495
Kentucky	982,405	1,155,684	1,321,011	1,648,690	1,858,635	2,147,174
Louisiana	517,762	708,002	726,915	939,946	1,118,588	1,381,625
Maine	583,169	628,279	626,915	648,936	661,086	694,466
Maryland	583,034	687,049	780,894	934,943	1,042,390	1,188,044
Massachusetts	994,514	1,231,066	1,457,351	1,783,085	2,238,947	2,805,346
Michigan	397,654	749,113	1,184,059	1,636,937	2,093,890	2,420,982
Minnesota	6,077	172,023	439,706	780,773	1,310,283	1,751,394
Mississippi	606,526	791,305	827,922	1,131,597	1,289,600	1,551,270
Missouri	682,044	1,182,012	1,721,295	2,168,380	2,679,185	3,106,665
Montana	.....	.....	20,595	39,159	142,924	243,329
Nebraska	.....	28,841	122,993	452,402	1,062,656	1,066,300
Nevada	.....	6,857	42,491	62,266	47,355	42,335
New Hampshire	317,976	326,073	318,300	346,991	376,530	411,588
New Jersey	489,555	672,035	906,096	1,131,116	1,444,933	1,883,669
New Mexico	61,547	93,516	91,874	119,565	160,282	195,310
New York	3,097,394	3,880,735	4,382,759	5,082,871	6,003,174	7,268,894
North Carolina	869,039	992,622	1,071,361	1,399,750	1,617,949	1,893,810
North Dakota*	.....	.....	2,405	36,909	190,983	319,146

State	1850	1860	1870	1880	1890	1900
Ohio	1,980,329	2,339,511	2,665,260	3,198,062	3,672,329	4,157,545
Oklahoma	.....	.....	.....	.....	258,657†	790,391†
Oregon	13,294	52,465	90,923	174,768	317,704	413,536
Pennsylvania	2,311,786	2,906,215	3,521,951	4,282,891	5,258,113	6,302,115
Rhode Island	147,545	174,620	217,353	276,531	345,506	428,556
South Carolina	668,507	703,708	705,606	995,577	1,151,149	1,340,316
South Dakota*	.....	4,837	11,776	98,268	348,600	401,570
Tennessee	1,002,717	1,109,801	1,258,520	1,542,359	1,767,518	2,020,616
Texas	212,592	604,215	818,579	1,591,749	2,235,527	3,048,710
Utah	11,380	40,273	86,786	143,963	210,779	276,749
Vermont	314,120	315,098	330,551	332,286	332,422	343,641
Virginia	1,421,661	1,596,318	1,225,163	1,512,565	1,655,980	1,854,184
Washington	.....	11,594	23,955	75,116	357,232	518,103
West Virginia	.....	.....	442,014	618,457	762,794	958,800
Wisconsin	305,391	775,881	1,054,670	1,315,497	1,693,330	2,069,042
Wyoming	.....	.....	9,118	20,789	62,555	92,531

State	1910	Rank	1920	Rank	1930	Rank	1940	Rank	1950	Rank
Alabama	2,138,093	18	2,348,174	18	2,646,248	15	2,832,961	17	3,061,743	17
Arizona	204,354	45	334,162	43	435,573	43	499,261	43	749,587	37
Arkansas	1,574,449	25	1,752,204	25	1,854,482	25	1,949,387	24	1,909,511	30
California	2,377,549	12	3,426,861	8	5,677,251	6	6,907,387	5	10,586,223	2
Colorado	799,024	32	939,629	33	1,035,791	33	1,123,296	33	1,325,089	34
Connecticut	1,114,756	31	1,380,631	29	1,606,903	29	1,709,242	31	2,007,280	28
Delaware	202,322	46	223,003	46	238,380	46	266,505	46	318,085	46
D. C.	331,069	..	437,571	..	486,869	..	663,091	..	802,178	..
Florida	752,619	33	968,470	32	1,468,211	31	1,897,414	27	2,771,305	20
Georgia	2,609,121	10	2,895,832	12	2,908,506	14	3,123,723	14	3,444,578	13
Idaho	325,594	44	431,866	42	445,032	42	524,873	42	588,637	43
Illinois	5,638,591	3	6,485,280	3	7,630,654	3	7,897,241	3	8,712,176	4
Indiana	2,700,876	9	2,930,390	11	3,238,503	11	3,427,796	12	3,934,224	12
Iowa	2,224,771	15	2,404,021	16	2,470,939	19	2,538,268	20	2,621,073	22
Kansas	1,690,949	22	1,769,257	24	1,880,999	24	1,801,028	29	1,905,299	31
Kentucky	2,289,905	14	2,416,630	15	2,614,589	17	2,845,627	16	2,944,806	19
Louisiana	1,656,388	24	1,798,509	22	2,101,593	22	2,363,880	21	2,683,516	21
Maine	742,371	34	768,014	35	797,423	35	847,226	35	913,774	35
Maryland	1,295,346	27	1,449,661	28	1,631,526	28	1,821,244	28	2,343,001	24
Massachusetts	3,366,416	6	3,852,356	6	4,249,614	8	4,316,721	8	4,690,514	9
Michigan	2,810,173	8	3,668,412	7	4,842,325	7	5,256,106	7	6,371,766	7
Minnesota	2,075,708	19	2,387,125	17	2,563,953	18	2,792,300	18	2,982,483	18
Mississippi	1,797,114	21	1,790,618	23	2,009,821	23	2,183,796	23	2,178,914	26
Missouri	3,293,335	7	3,404,055	9	3,629,367	10	3,784,664	10	3,954,653	11
Montana	376,053	40	548,889	39	537,606	39	559,456	39	591,024	42
Nebraska	1,192,214	29	1,296,372	31	1,377,963	32	1,315,834	32	1,325,510	33
Nevada	71,875	48	77,407	48	91,058	48	110,247	28	160,083	48
New Hampshire	430,572	39	443,083	41	465,293	41	491,524	44	533,242	44
New Jersey	2,537,167	11	3,155,900	10	4,041,334	9	4,160,165	9	4,835,329	8
New Mexico	327,301	43	360,350	43	423,317	44	531,818	41	681,187	39
New York	9,113,614	1	10,385,227	1	12,588,066	1	13,479,142	1	14,830,192	1
North Carolina	2,206,287	16	2,559,123	14	3,170,276	12	3,571,623	11	4,061,929	10
North Dakota	577,056	37	646,872	36	680,845	38	641,935	38	619,636	41
Ohio	4,767,121	4	5,759,394	4	6,646,697	4	6,907,612	4	7,946,627	5
Oklahoma	1,657,155	23	2,028,283	21	2,396,040	21	2,336,434	22	2,233,351	25
Oregon	672,765	35	783,389	34	953,786	34	1,089,684	34	1,521,341	32
Pennsylvania	7,665,111	2	8,720,017	2	9,631,350	2	9,900,180	2	10,498,012	3
Rhode Island	542,610	38	604,397	38	687,497	37	713,346	36	791,896	36
South Carolina	1,515,400	26	1,683,724	26	1,738,765	26	1,899,804	26	2,117,027	27
South Dakota	583,888	36	636,547	87	692,849	36	642,961	37	652,740	40
Tennessee	2,184,789	17	2,337,885	19	2,616,556	16	2,915,841	15	3,291,718	16
Texas	3,896,542	5	4,663,228	5	5,824,715	5	6,414,824	6	7,711,194	6
Utah	373,351	41	449,396	40	507,847	40	550,310	40	688,862	38
Vermont	355,956	42	352,428	44	359,611	45	359,231	45	377,747	45
Virginia	2,061,612	20	2,309,187	20	2,421,851	20	2,677,773	19	3,318,680	15
Washington	1,141,990	30	1,356,621	30	1,563,396	30	1,736,191	30	2,378,963	23
West Virginia	1,221,119	28	1,463,701	27	1,729,205	27	1,901,974	25	2,005,552	29
Wisconsin	2,333,860	13	2,632,067	13	2,939,006	13	3,137,518	13	3,434,575	14
Wyoming	145,965	47	194,402	47	225,565	47	250,742	47	290,529	47

* 1860 figure under South Dakota is for Dakota Territory; 1870 and 1880 figures under North and South Dakota are for parts of Territory which later constituted respective states. † Includes population of Indian Territory: 1890, 180,182; 1900, 392,060.

Population and Area of Major U. S. Cities

(over 50,000 population in 1950)

Source: U. S. Bureau of the Census.

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
Akron, Ohio	69,067	208,435	255,040	244,791	274,605	39	54.1
Alameda, Calif.	23,383	28,806	35,033	36,256	64,430	184	29.0
Albany, N. Y.	100,253	113,344	127,412	130,577	134,995	68	19.6
Albuquerque, N. Mex.	11,020	15,157	26,570	35,449	96,815	112	11.0
Alexandria, Va.	15,329	18,060	24,149	33,523	61,787	192	7.6
Alhambra, Calif.	5,021	9,096	29,472	38,935	51,359	224	6.4
Allentown, Pa.	51,913	73,502	92,563	96,904	106,756	99	16.1
Altoona, Pa.	52,127	60,331	82,054	80,214	77,177	150	9.0
Amarillo, Tex.	9,957	15,494	43,132	51,686	74,246	155	16.4
Asheville, N. C.	18,762	28,504	50,193	51,310	53,000	215	14.7
Atlanta, Ga.	154,839	200,616	270,366	302,288	331,314	33	34.7
Atlantic City, N. J.	46,150	50,707	66,198	64,094	61,657	193	16.4
Augusta, Ga.	41,040	52,548	60,342	65,919	71,503	165	9.8
Aurora, Ill.	29,807	36,397	46,589	47,170	50,576	230	8.3
Austin, Tex.	29,860	34,876	53,120	87,930	132,459	72	26.3
Baltimore, Md.	558,485	733,826	804,874	859,100	949,708	6	85.6
Baton Rouge, La.	14,897	21,782	30,729	34,719	125,629	81	4.0
Bay City, Mich.	45,166	47,554	47,355	47,956	52,523	218	11.1
Bayonne, N. J.	55,545	76,754	88,979	79,198	77,203	149	11.4
Beaumont, Tex.	20,640	40,422	57,732	59,061	94,014	118	10.5
Berkeley, Calif.	40,434	56,036	82,109	85,547	113,805	90	17.2
Berwyn, Ill.	5,841	14,150	47,027	48,451	51,280	225	3.8
Bethlehem, Pa.	12,837	50,358	57,892	58,490	66,340	176	17.8
Binghamton, N. Y.	48,443	66,800	76,662	78,309	80,674	139	10.6
Birmingham, Ala.	132,685	178,806	259,678	267,583	326,037	34	50.3
Boston, Mass.	670,585	748,060	781,188	770,816	801,444	10	65.9
Bridgeport, Conn.	102,054	143,555	146,716	147,121	158,709	63	17.9
Brockton, Mass.	56,878	66,254	63,797	62,343	62,860	191	21.5
Buffalo, N. Y.	423,715	506,775	573,076	575,901	580,132	15	50.2
Burbank, Calif.	.....	2,913	16,662	34,337	78,577	146	16.3
Cambridge, Mass.	104,839	109,694	113,643	110,879	120,740	86	7.0
Camden, N. J.	94,538	116,309	118,700	117,536	124,555	85	9.8
Canton, Ohio	50,217	87,091	104,906	108,401	116,912	88	14.0
Cedar Rapids, Iowa	32,811	45,566	56,097	62,120	72,296	161	28.4
Charleston, S. C.	58,833	67,957	62,265	71,275	70,174	170	5.9
Charleston, W. Va.	22,996	39,608	60,408	67,914	73,501	159	8.5
Charlotte, N. C.	34,014	46,338	82,675	100,899	134,042	69	19.3
Chattanooga, Tenn.	44,604	57,895	119,798	128,163	131,041	73	27.9
Chester, Pa.	38,537	58,030	59,164	59,285	66,039	179	6.1
Chicago, Ill.	2,185,283	2,701,705	3,376,438	3,396,808	3,620,962	2	211.3
Cicero, Ill.	14,557	44,995	66,602	64,712	67,544	173	5.8
Cincinnati, Ohio	363,591	401,247	451,160	455,610	503,998	18	72.4
Cleveland, Ohio	560,663	796,841	900,429	878,336	914,808	7	73.1
Cleveland Heights, Ohio	2,955	15,236	50,945	54,992	59,141	198	8.2
Clifton, N. J.	.....	26,470	46,875	48,827	64,511	182	11.9
Columbia, S. C.	26,319	37,524	51,581	62,396	86,914	129	9.0
Columbus, Ga.	20,554	31,125	43,131	53,280	79,611	142	6.8
Columbus, Ohio	181,511	237,031	290,564	306,087	375,901	28	39.5
Corpus Christi, Tex.	8,222	10,522	27,741	57,301	108,287	97	13.9
Covington, Ky.	53,270	57,121	65,252	62,018	64,452	183	6.5
Cranston, R. I.	21,107	29,407	42,911	47,085	55,060	210	30.0
Dallas, Tex.	92,104	158,976	260,475	294,734	434,462	22	41.8
Davenport, Iowa	43,028	56,727	60,751	66,039	74,549	152	19.8
Dayton, Ohio	116,577	152,559	200,982	210,718	243,872	44	23.7
Dearborn, Mich.	911	2,470	50,358	63,584	94,994	117	25.1
Decatur, Ill.	31,140	43,818	57,510	59,305	66,269	177	9.5
Denver, Colo.	213,381	256,491	287,861	322,412	415,786	24	58.7
Des Moines, Iowa	86,368	126,468	142,559	159,819	177,965	53	53.8
Detroit, Mich.	465,766	993,678	1,568,662	1,623,452	1,849,568	5	142.0
Duluth, Minn.	78,466	98,917	101,463	101,065	104,511	102	70.9
Durham, N. C.	18,241	21,719	52,037	60,195	71,311	166	13.3
East Chicago, Ind.	19,098	35,967	54,784	54,637	54,263	213	10.7
East Orange, N. J.	34,371	50,710	68,020	68,945	79,340	143	3.9
East St. Louis, Ill.	58,547	66,767	74,347	75,609	82,295	135	13.9

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
El Paso, Tex.	39,279	77,560	102,421	96,810	130,485	75	13.7
Elizabeth, N. J.	73,409	95,783	114,589	109,912	112,817	91	13.3
Erie, Pa.	66,525	93,372	115,967	116,955	130,803	74	18.0
Evanston, Ill.	24,978	37,234	63,338	65,389	73,641	158	8.2
Evansville, Ind.	69,647	85,264	102,249	97,062	128,636	78	9.7
Fall River, Mass.	119,295	120,485	115,274	115,428	111,963	92	40.8
Flint, Mich.	38,550	91,599	156,492	151,543	163,143	60	29.4
Fort Wayne, Ind.	63,933	86,549	114,946	118,410	133,607	71	17.1
Fort Worth, Tex.	73,312	106,482	163,447	177,662	278,778	38	58.1
Fresno, Calif.	24,892	45,086	52,513	60,685	91,669	124	9.9
Gadsden, Ala.	10,557	14,737	24,042	36,975	55,725	207	12.7
Galveston, Tex.	36,981	44,255	52,938	60,862	66,568	175	34.8
Gary, Ind.	16,802	55,378	100,426	111,719	133,911	70	40.6
Glendale, Calif.	2,746	13,536	62,736	82,582	95,702	115	20.0
Grand Rapids, Mich.	112,571	137,634	168,592	164,292	176,515	55	23.0
Green Bay, Wis.	25,236	31,017	37,415	46,235	52,735	216	14.8
Greensboro, N. C.	15,895	19,861	53,569	59,319	74,389	153	18.0
Greenville, S. C.	15,741	23,127	29,154	34,734	58,161	201	5.0
Hamilton, Ohio	35,279	39,675	52,176	50,592	57,951	202	6.6
Hammond, Ind.	20,925	36,004	64,560	70,184	87,594	128	24.4
Harrisburg, Pa.	64,186	75,917	80,339	83,893	89,544	126	9.8
Hartford, Conn.	98,915	138,036	164,072	166,267	177,397	54	18.6
Hoboken, N. J.	70,324	68,166	59,261	50,115	50,676	229	1.6
Holyoke, Mass.	57,730	60,203	56,537	53,750	54,661	211	22.8
Houston, Tex.	78,800	138,276	292,352	384,514	596,163	14	72.8
Huntington, W. Va.	31,161	50,177	75,572	78,836	86,353	130	14.8
Indianapolis, Ind.	233,650	314,194	364,161	386,972	427,173	23	53.7
Irvington, N. J.	11,877	25,480	56,733	55,328	59,201	197	3.1
Jackson, Mich.	31,433	48,374	55,187	49,656	51,088	228	10.2
Jackson, Miss.	21,262	22,817	48,282	62,107	98,271	110	16.1
Jacksonville, Fla.	57,699	91,558	129,549	173,065	204,517	49	39.4
Jersey City, N. J.	267,779	298,103	316,715	301,173	299,017	37	21.5
Johnstown, Pa.	55,482	67,327	66,993	66,668	63,232	189	5.6
Joliet, Ill.	34,670	38,442	42,993	42,365	51,601	222	6.0
Kalamazoo, Mich.	39,437	48,487	54,786	54,097	57,704	203	8.5
Kansas City, Kans.	82,331	101,177	121,857	121,458	129,553	76	20.4
Kansas City, Mo.	248,381	324,410	399,746	399,178	456,622	20	59.4
Kenosha, Wis.	21,371	40,472	50,262	48,765	54,368	212	7.7
Knoxville, Tenn.	36,346	77,818	105,802	111,580	124,769	83	25.4
Lakewood, Ohio	15,181	41,732	70,509	69,160	68,071	171	5.6
Lancaster, Pa.	47,227	53,150	59,949	61,345	63,774	186	3.9
Lansing, Mich.	31,229	57,327	78,397	78,753	92,129	121	11.6
Laredo, Tex.	14,855	22,710	32,618	39,274	51,910	221	14.4
Lawrence, Mass.	85,892	94,270	85,068	84,323	80,536	140	7.2
Lexington, Ky.	35,099	41,534	45,736	49,304	55,534	209	5.4
Lima, Ohio	30,508	41,326	42,287	44,711	50,246	231	7.5
Lincoln, Nebr.	43,973	54,948	75,933	81,984	98,884	109	24.3
Little Rock, Ark.	45,941	65,142	81,679	88,039	102,213	105	17.9
Long Beach, Calif.	17,809	55,593	142,032	164,271	250,767	41	32.6
Lorain, Ohio	28,883	37,295	44,512	44,125	51,202	226	10.5
Los Angeles, Calif.	319,198	576 673	1,238,048	1,504,277	1,970,358	4	452.2
Louisville, Ky.	223,928	234,891	307,745	319,077	369,129	30	40.8
Lowell, Mass.	106,294	112,759	100,234	101,389	97,249	111	14.1
Lubbock, Tex.	1,938	4,051	20,520	31,853	71,747	163	6.3
Lynn, Mass.	89,336	99,148	102,320	98,123	99,738	107	10.9
McKeesport, Pa.	42,694	46,781	54,632	55,355	51,502	223	5.2
Macon, Ga.	40,665	52,995	53,829	57,865	70,252	169	8.1
Madison, Wis.	25,531	38,378	57,899	67,447	96,056	114	8.1
Malden, Mass.	44,404	49,103	58,036	58,010	59,804	195	4.8
Manchester, N. H.	70,063	78,384	76,834	77,685	82,732	134	33.9
Medford, Mass.	23,150	39,038	59,714	63,083	66,113	178	8.6
Memphis, Tenn.	131,105	162,351	253,143	292,942	396,000	26	48.5
Miami, Fla.	5,471	29,571	110,637	172,172	249,276	42	38.1
Milwaukee, Wis.	373,857	457,147	578,249	587,472	637,392	13	43.4
Minneapolis, Minn.	301,408	380,582	464,356	492,370	521,718	17	58.8
Mobile, Ala.	51,521	60 777	68,202	78,720	129,009	77	13.5
Montgomery, Ala.	38,136	43,464	66,079	78,084	106,525	100	20.3
Mount Vernon, N. Y.	30,919	42,726	61,499	67,362	71,899	162	4.2
Muncie, Ind.	24,005	36,524	46,548	49,720	58,479	200	9.3
Nashville, Tenn.	110,364	118,342	153,866	167,402	174,307	56	22.0

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
New Bedford, Mass.	96,652	121,217	112,597	110,341	109,189	96	19.4
New Britain, Conn.	43,916	59,316	68,128	68,685	73,726	156	13.8
New Haven, Conn.	133,605	162,537	162,655	160,605	164,443	59	22.5
New Orleans, La.	339,075	387,219	458,762	494,537	570,445	16	363.5
New Rochelle, N. Y.	28,867	36,213	54,000	58,408	59,725	196	10.0
New York, N. Y.	4,766,883	5,620,048	6,930,446	7,454,995	7,891,957	1	365.4
Bronx	430,980	732,016	1,265,258	1,394,711	1,451,277	...	54.4
Brooklyn	1,634,351	2,018,356	2,560,401	2,698,285	2,738,175	...	88.8
Manhattan	2,331,542	2,284,103	1,867,312	1,889,924	1,960,101	...	31.2
Queens	284,041	469,042	1,079,129	1,297,634	1,550,849	...	126.6
Richmond	85,969	116,531	158,346	174,441	191,555	...	64.4
Newark, N. J.	347,469	414,524	442,337	429,760	438,776	21	26.8
Newton, Mass.	39,806	46,054	65,276	69,873	81,994	136	17.5
Niagara Falls, N. Y.	30,445	50,760	75,460	78,029	90,872	125	15.9
Norfolk, Va.	67,452	115,777	129,710	144,332	213,513	48	35.9
Oak Park, Ill.	19,444	39,858	63,982	66,015	63,529	188	4.7
Oakland, Calif.	150,174	216,261	284,063	302,163	384,575	27	60.3
Ogden, Utah	25,580	32,804	40,272	43,688	57,112	206	16.7
Oklahoma City, Okla.	64,205	91,295	185,389	204,424	243,504	45	49.8
Omaha, Nebr.	124,096	191,601	214,006	223,844	251,117	40	39.3
Orlando, Fla.	3,894	9,282	27,330	36,736	52,367	219	11.6
Pasadena, Calif.	30,291	45,354	76,086	81,864	104,577	101	19.4
Passaic, N. J.	54,773	63,841	62,959	61,394	57,702	204	3.2
Paterson, N. J.	125,600	135,875	138,513	139,656	139,336	66	8.4
Pawtucket, R. I.	51,622	64,248	77,149	75,797	81,436	138	9.0
Peoria, Ill.	66,950	76,121	104,969	105,087	111,856	93	13.7
Philadelphia, Pa.	1,549,008	1,823,779	1,950,961	1,931,334	2,071,605	3	135.0
Phoenix, Ariz.	11,134	29,053	48,118	65,414	106,818	98	9.7
Pittsburgh, Pa.	533,905	588,343	669,817	671,659	676,806	12	55.1
Pittsfield, Mass.	32,121	41,763	49,677	49,684	53,348	214	42.4
Pontiac, Mich.	14,532	34,273	64,928	66,626	73,681	157	20.0
Port Arthur, Tex.	7,663	22,251	50,902	46,140	57,530	205	27.3
Portland, Maine	58,571	69,272	70,810	73,643	77,634	148	37.8
Portland, Oreg.	207,214	258,288	301,815	305,394	373,628	29	66.9
Portsmouth, Va.	33,190	54,387	45,704	50,745	80,039	141	6.9
Providence, R. I.	224,326	237,595	252,981	253,504	248,674	43	19.9
Pueblo, Colo.	41,747	43,050	50,096	52,162	63,685	187	10.2
Quincy, Mass.	32,642	47,876	71,983	75,810	83,835	133	26.4
Racine, Wis.	38,002	58,593	67,542	67,195	71,193	167	8.7
Raleigh, N. C.	19,218	24,418	37,379	46,897	65,679	180	7.5
Reading, Pa.	96,071	107,784	111,171	110,568	109,320	95	8.8
Richmond, Calif.	6,802	16,843	20,093	23,642	99,545	108	25.5
Richmond, Va.	127,628	171,667	182,929	193,042	230,310	46	23.0
Roanoke, Va.	34,874	50,842	69,206	69,287	91,921	122	10.8
Rochester, N. Y.	218,149	295,750	328,132	324,975	332,488	32	35.3
Rockford, Ill.	45,401	65,651	85,864	84,637	92,927	119	12.4
Sacramento, Calif.	44,696	65,908	93,750	105,958	137,572	67	13.7
Saginaw, Mich.	50,510	61,903	80,715	82,794	92,918	120	17.0
St. Joseph, Mo.	77,403	77,939	80,935	75,711	78,588	145	14.1
St. Louis, Mo.	687,029	772,897	821,960	816,048	856,796	8	65.0
St. Paul, Minn.	214,744	234,698	271,606	287,736	311,349	35	54.9
St. Petersburg, Fla.	4,127	14,237	40,425	60,812	96,738	113	58.1
Salt Lake City, Utah	92,777	118,110	140,267	149,934	182,121	52	52.5
San Angelo, Tex.	10,321	10,050	25,308	25,802	52,093	220	7.2
San Antonio, Tex.	96,614	161,379	231,542	253,854	408,442	25	35.8
San Bernardino, Calif.	12,779	18,721	37,481	43,646	63,058	190	18.4
San Diego, Calif.	39,578	74,361	147,995	203,341	334,387	31	105.8
San Francisco, Calif.	416,912	506,676	634,394	634,536	775,357	11	93.1
San Jose, Calif.	28,946	39,642	57,651	68,457	95,280	116	14.8
Santa Monica, Calif.	7,847	15,252	37,146	53,500	71,595	164	8.0
Savannah, Ga.	65,064	83,252	85,024	95,996	119,638	87	11.5
Schenectady, N. Y.	72,826	88,723	95,692	87,549	91,785	123	10.4
Scranton, Pa.	129,867	137,783	143,433	140,404	125,536	82	19.5
Seattle, Wash.	237,194	315,312	365,583	368,302	467,591	19	80.7
Shreveport, La.	28,015	43,874	76,655	98,167	127,206	80	19.2
Sioux City, Iowa	47,828	71,227	79,183	82,364	83,991	132	46.2
Sioux Falls, S. Dak.	14,094	25,202	33,362	40,832	52,696	217	10.8
Somerville, Mass.	77,236	93,091	103,908	102,177	102,351	104	4.2
South Bend, Ind.	53,684	70,983	104,193	101,268	115,911	89	19.7
South Gate, Calif.	.....	.....	19,632	26,945	51,116	227	7.5

City	1910 population	1920 population	1930 population	1940 population	1950 population	1950 rank	Area, sq. mi.*
Spokane, Wash.	104,402	104,437	115,514	122,001	161,721	62	41.5
Springfield, Ill.	51,678	59,183	71,864	75,503	81,628	137	9.5
Springfield, Mass.	88,926	129,614	149,900	149,554	162,399	61	33.1
Springfield, Mo.	35,201	39,631	57,527	61,238	66,731	174	13.6
Springfield, Ohio	46,921	60,840	68,743	70,662	78,508	147	11.8
Stamford, Conn.	25,138	35,096	46,346	47,938	74,293	154	7.0
Stockton, Calif.	23,253	40,296	47,963	54,714	70,853	168	9.9
Syracuse, N. Y.	137,249	171,717	209,326	205,967	220,583	47	25.7
Tacoma, Wash.	83,743	96,965	106,817	109,408	143,673	65	49.1
Tampa, Fla.	37,782	51,608	101,161	108,391	124,681	84	22.7
Terre Haute, Ind.	58,157	66,083	62,810	62,693	64,214	185	9.8
Toledo, Ohio	168,497	243,164	290,718	282,349	303,616	36	41.3
Topeka, Kans.	43,684	50,022	64,120	67,833	78,791	144	11.7
Trenton, N. J.	96,815	119,289	123,356	124,697	128,009	79	7.7
Troy, N. Y.	76,813	71,996	72,763	70,304	72,311	160	10.0
Tulsa, Okla.	18,182	72,075	141,258	142,157	182,740	51	22.0
Union City, N. J.	21,023	20,651	58,659	56,173	55,537	208	1.3
Utica, N. Y.	74,419	94,156	101,740	100,518	101,531	106	15.8
Waco, Tex.	26,425	38,500	52,848	55,982	84,706	131	15.5
Washington, D. C.	331,069	437,571	486,869	663,091	802,178	9	69.2
Waterbury, Conn.	73,141	91,715	99,902	99,314	104,477	103	28.2
Waterloo, Iowa	26,693	36,230	46,191	51,743	65,198	181	13.6
Wheeling, W. Va.	41,641	56,208	61,659	61,099	58,891	199	11.1
Wichita, Kans.	52,450	72,217	111,110	114,966	168,279	58	21.6
Wichita Falls, Tex.	8,200	40,079	43,690	45,112	68,042	172	10.8
Wilkes-Barre, Pa.	67,105	73,833	86,626	86,236	76,826	151	7.2
Wilmington, Del.	87,411	110,168	106,597	112,504	110,356	94	17.3
Winston-Salem, N. C.	22,700	48,395	75,274	79,815	87,811	127	15.1
Woonsocket, R. I.	38,125	49,496	49,376	49,303	50,211	232	8.8
Worcester, Mass.	145,986	179,754	195,311	193 694	203,486	50	38.3
Yonkers, N. Y.	79,803	100,176	134,646	142,598	152,798	64	20.3
York, Pa.	44,750	47,512	55,254	56,712	59,953	194	4.1
Youngstown, Ohio	79,066	132,358	170,002	167,720	168,330	57	33.1

* Total land and water area in 1940. NOTE: Increase from census to census includes that due to annexation of territory as well as to direct growth.

Density of U. S. Population by State

Source: U. S. Bureau of the Census.

State	Land area, sq. mi.*	Population per sq. mi. 1920	1940	1950	State	Land area, sq. mi.*	Population per sq. mi. 1920	1940	1950
District of Columbia	61	7,292.9	10,870.3	13,150.5	Missouri	69,226	49.5	54.6	57.1
Rhode Island	1,058	566.4	674.2	748.5	Florida	54,262	17.7	35.0	51.1
New Jersey	7,522	420.0	553.1	642.8	Iowa	56,045	43.2	45.3	46.8
Massachusetts	7,867	479.2	545.3	596.2	Mississippi	47,248	38.6	46.1	46.1
Connecticut	4,893	286.4	348.9	409.7	Vermont	9,278	38.6	38.7	40.7
New York	47,944	217.9	281.2	309.3	Minnesota	80,009	29.5	34.9	37.3
Maryland	9,881	145.8	184.2	237.1	Arkansas	52,675	33.4	37.0	36.3
Pennsylvania	45,045	194.5	219.8	233.1	Washington	66,786	20.3	25.9	35.6
Ohio	41,000	141.4	168.0	193.8	Oklahoma	69,031	29.2	33.7	32.4
Delaware	1,978	113.5	134.7	163.8	Maine	31,040	25.7	27.3	29.4
Illinois	55,935	115.7	141.2	155.8	Texas	263,513	17.8	24.3	29.3
Michigan	57,022	63.8	92.2	111.7	Kansas	82,108	21.6	21.9	23.2
Indiana	36,205	81.3	94.7	108.7	Nebraska	76,663	16.9	17.2	17.3
West Virginia	24,080	60.9	79.0	83.3	Oregon	96,315	8.2	11.3	15.8
Virginia	39,893	57.4	67.1	83.2	Colorado	103,922	9.1	10.8	12.8
North Carolina	49,097	52.5	72.7	82.7	North Dakota	70,057	9.2	9.2	8.8
Tennessee	41,797	56.1	69.5	78.8	South Dakota	76,536	8.3	8.4	8.5
Kentucky	39,864	60.1	70.9	73.9	Utah	82,346	5.5	6.7	8.4
South Carolina	30,305	55.2	62.1	69.9	Idaho	82,769	5.2	6.3	7.1
California	156,740	22.0	44.1	67.5	Arizona	113,575	2.9	4.4	6.6
Wisconsin	54,705	47.6	57.3	62.8	New Mexico	121,511	2.9	4.4	5.6
Alabama	51,078	45.8	55.5	59.9	Montana	145,878	3.8	3.8	4.1
Louisiana	45,162	39.6	52.3	59.4	Wyoming	97,506	2.0	2.6	3.0
New Hampshire	9,017	49.1	54.5	59.1	Nevada	109,789	0.7	1.0	1.5
Georgia	58,483	49.3	53.4	58.9					

* 1950.

Population by Race, 1940

Source: U. S. Bureau of the Census.

State	Native white	Foreign-born white	Negro	Indian	Chinese	Japanese
Alabama	1,837,140	11,957	983,290	464	41	21
Arizona	389,955	36,837	14,993	55,076	1,449	632
Arkansas	1,458,392	7,692	482,578	278	432	3
California	5,725,870	870,893	124,306	18,675	39,556	93,717
Colorado	1,036,031	70,471	12,176	1,360	216	2,734
Connecticut	1,347,466	327,941	32,992	201	292	164
Delaware	215,695	14,833	35,876	14	39	22
D. C.	440,312	34,014	187,266	190	656	68
Florida	1,312,125	69,861	514,198	690	214	154
Georgia	2,026,362	11,916	1,084,927	106	326	31
Idaho	495,176	24,116	595	3,537	208	1,191
Illinois	6,534,829	969,373	387,446	624	2,456	462
Indiana	3,194,692	110,631	121,916	223	208	29
Iowa	2,403,446	117,245	16,694	733	81	29
Kansas	1,683,084	51,412	65,138	1,165	133	19
Kentucky	2,615,794	15,631	214,031	44	100	9
Louisiana	1,484,467	27,272	849,303	1,801	360	46
Maine	760,902	83,641	1,304	1,251	92	5
Maryland	1,436,766	81,715	301,931	73	437	36
Massachusetts	3,408,744	848,852	55,391	769	2,513	158
Michigan	4,356,613	683,080	208,345	6,282	924	139
Minnesota	2,474,078	294,904	9,928	12,528	551	51
Mississippi	1,100,339	5,988	1,074,578	2,134	743	1
Missouri	3,425,062	114,125	244,386	330	334	74
Montana	484,826	55,642	1,120	16,841	258	508
Nebraska	1,215,771	81,853	14,171	3,401	102	480
Nevada	93,431	10,599	664	4,747	286	470
New Hampshire	422,693	68,296	414	50	63	4
New Jersey	3,235,277	695,810	226,973	211	1,200	298
New Mexico	477,065	15,247	4,672	34,510	106	186
New York	10,026,016	2,853,530	571,221	8,651	13,731	2,538
North Carolina	2,558,589	9,046	981,298	22,546	83	21
North Dakota	557,192	74,272	201	10,114	56	83
Ohio	6,047,265	519,266	339,461	338	921	163
Oklahoma	2,083,869	20,359	168,849	63,125	112	57
Oregon	988,092	87,639	2,565	4,594	2,086	4,071
Pennsylvania	8,453,729	973,260	470,172	441	1,477	224
Rhode Island	564,021	137,784	11,024	196	257	6
South Carolina	1,079,393	4,915	814,164	1,234	27	33
South Dakota	575,023	44,052	474	23,347	36	19
Tennessee	2,395,586	11,320	508,736	114	60	12
Texas	5,253,157	234,388	924,391	1,103	1,031	458
Utah	510,622	32,298	1,235	3,611	228	2,210
Vermont	327,079	31,727	384	16	21	3
Virginia	1,992,596	22,987	661,449	198	208	74
Washington	1,494,984	203,163	7,424	11,394	2,345	14,565
West Virginia	1,742,320	41,782	117,754	25	57	3
Wisconsin	2,823,978	288,774	12,158	12,265	290	23
Wyoming	229,818	16,779	956	2,349	102	643
Totals	106,795,732	11,419,138	12,865,518	333,969	77,504	126,947

Cases of Single and Plural Births, U. S., 1949

Source: Federal Security Agency, Public Health Service.

Cases of births	Age of mother: Under 15	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50 & over	Not stated	Total cases
Single births	4,968	427,970	1,136,179	985,779	565,694	282,205	72,378	4,979	146	7,250	3,487,548
Twins	25	2,600	9,492	10,835	7,900	4,571	967	37	2	50	36,479
Triplets	...	18	56	95	97	53	17	1	...	...	337
Quadruplets	...	...	...	2	1	...	...	...	...	...	3
Total cases	4,993	430,588	1,145,727	996,711	573,692	286,829	73,362	5,017	148	7,300	3,524,367

NOTE: "Cases" refer to confinements resulting in either a single or plural issue. Only those cases in which at least one child was born alive are included.

Population for Urban and Rural Groups, 1930–50

Source: U. S. Bureau of the Census.

Under the urban definition established for the 1950 Census, the urban population comprised all persons living in (a) places of 2,500 inhabitants or more, incorporated as cities, boroughs, towns (except in New England, New York and Wisconsin, where "towns" are minor civil divisions of counties and are not necessarily densely settled centers), and villages; (b) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (c) unincorporated places of 2,500 inhabitants or more, outside any urban fringe. The remaining population is classified as rural. According to the urban definition used in previous censuses, the urban population comprised all persons living in incorporated places of 2,500 inhabitants or more and areas (usually minor civil divisions) classified as urban under special rules relating to population size and density.

Type of place by population	1930 Number of places	1930 Population	1940 Number of places	1940 Population	1950* Number of places	1950* Population
Urban territory	3,165	68,954,823	3,464	74,423,702	4,270	87,992,647
1,000,000 or more	5	15,064,555	5	15,910,866	5	17,302,538
500,000–1,000,000	8	5,763,987	9	6,456,959	13	9,110,922
250,000– 500,000	24	7,956,228	23	7,827,514	21	7,658,554
100,000– 250,000	56	7,540,966	55	7,792,650	67	9,882,796
50,000– 100,000	98	6,491,448	107	7,343,917	125	8,826,703
25,000– 50,000	185	6,425,693	213	7,417,093	246	8,644,050
10,000– 25,000	606	9,097,200	665	9,966,898	780	11,962,110
5,000– 10,000	851	5,897,156	965	6,681,894	1,173	8,123,192
2,500– 5,000	1,332	4,717,590	1,422	5,025,911	1,840	6,481,676
Rural territory	.....	53,820,223	.....	57,245,573	.....	.....
1,000–2,500 (Incorporated)	3,087	4,820,707	3,205	5,026,834	.....	.....
Under 1,000 (Incorporated)	10,346	4,362,746	10,083	4,315,843	.....	.....
Unincorporated territory	.....	44,636,770	.....	47,902,896	.....	.....
Total United States	.....	122,775,046	.....	131,669,275	.....	.....

* Preliminary figures. Data on rural population not yet available.

U. S. Population by Sex, 1950

(Preliminary)

Source: U. S. Bureau of the Census.

State	Males	Females	Males per 100 females	State	Males	Females	Males per 100 females
Alabama	1,502,223	1,559,520	96.3	Nebraska	667,332	658,178	101.4
Arizona	379,059	370,528	102.3	Nevada	85,017	75,066	113.3
Arkansas	951,534	957,977	99.3	New Hampshire	262,424	270,818	96.9
California	5,228,000	5,358,000	97.6	New Jersey	2,319,000	2,516,000	92.2
Colorado	665,149	659,940	100.8	New Mexico	3[illegible]7,544	333,643	10[illegible].2
Connecticut	988,497	1,018,733	97.0	New York	7,162,000	7,668,000	93.4
Delaware	157,344	160,741	97.9	North Carolina	2,017,105	2,044,824	98.6
District of Columbia	377,879	424,299	89.1	North Dakota	322,944	296,692	108.8
Florida	1,366,917	1,404,388	97.3	Ohio	3,935,000	4,011,000	98.1
Georgia	1,688,557	1,755,911	96.2	Oklahoma	1,115,595	1,117,756	99.8
Idaho	303,237	285,400	106.2	Oregon	772,776	748,565	103.2
Illinois	4,256,000	4,456,000	95.5	Pennsylvania	5,239,000	5,259,000	99.6
Indiana	1,958,515	1,975,708	99.1	Rhode Island	390,453	401,443	97.3
Iowa	1,310,325	1,311,048	99.9	South Carolina	1,040,540	1,076,487	96.7
Kansas	953,534	951,765	100.2	South Dakota	377,251	315,489	106.9
Kentucky	1,475,092	1,469,714	100.4	Tennessee	1,623,[illegible]06	1,668,612	97.3
Louisiana	1,319,160	1,364,356	96.7	Texas	3,855,000	3,857,000	99.9
Maine	454,145	459,629	98.8	Utah	347,636	341,226	101.9
Maryland	1,166,513	1,176,398	99.2	Vermont	187,754	189,993	98.8
Massachusetts	2,292,000	2,398,000	95.6	Virginia	1,675,129	1,643,551	101.9
Michigan	3,190,000	3,181,000	100.3	Washington	1,223,856	1,155,107	106.0
Minnesota	1,501,354	1,481,129	101.4	West Virginia	1,006,287	999,265	100.7
Mississippi	1,076,791	1,102,123	97.7	Wisconsin	1,726,842	1,707,733	101.1
Missouri	1,930,000	2,024,000	95.4	Wyoming	154,853	135,676	114.1
Montana	309,423	281,601	109.9	Total U. S. 1950	74,615,593	76,079,082	98.1

Comparison With Previous Census Years

1870	19,493,565	19,064,805	102.2	1910	47,332,277	44,639,983	106.0
1880	25,518,820	24,636,963	103.6	1920	53,900,431	51,810,187	104.0
1890	32,237,101	30,710,613	105.0	1930	62,137,080	60,637,966	102.5
1900	38,816,448	37,178,127	104.4	1940	65,061,592	65,607,683	100.7

Number of Villages, Towns, and Cities in the United States, 1950

Source: Buckley-Dement Advertising Corporation, Chicago.

State	Population* Under 1,000	1,000 to 2,000	2,000 to 3,000	3,000 to 5,000	5,000 to 10,000	10,000 to 25,000	25,000 to 50,000	50,000 to 100,000	Over 100,000	Total
Alabama	1,285	45	23	20	25	13	3	1	3	1,418
Arizona	263	11	4	9	9	1	1	...	1	299
Arkansas	1,462	46	26	19	18	7	4	...	1	1,583
California	879	50	36	44	50	71	18	11	7	1,166
Colorado	699	32	14	11	11	7	1	1	1	777
Connecticut	277	32	26	28	25	20	13	2	4	377
Delaware	117	10	4	1	5	...	...	...	1	138
D. C.	....	...	...	...	...	...	...	...	1	1
Florida	781	46	28	34	19	14	9	2	3	936
Georgia	1,117	79	31	39	22	15	3	3	2	1,311
Idaho	340	21	8	12	5	7	2	...	...	395
Illinois	1,694	183	68	69	74	46	13	11	2	2,160
Indiana	1,455	90	29	29	37	20	10	4	5	1,679
Iowa	1,337	112	29	28	28	10	8	4	1	1,557
Kansas	1,135	60	35	23	11	19	2	1	2	1,288
Kentucky	3,066	65	18	28	20	8	4	2	1	3,212
Louisiana	1,020	51	19	19	22	10	4	...	3	1,148
Maine	812	96	27	30	17	10	2	1	...	995
Maryland	945	31	8	8	7	9	2	...	1	1,011
Massachusetts	373	42	43	53	51	54	17	11	7	651
Michigan	1,502	98	45	31	37	35	10	7	3	1,768
Minnesota	1,399	108	34	25	32	16	2	...	3	1,619
Mississippi	1,179	48	17	18	13	9	5	1	...	1,290
Missouri	2,389	106	34	40	28	20	4	2	2	2,625
Montana	652	23	9	8	6	4	3	...	...	705
Nebraska	735	65	15	17	9	8	...	1	1	851
Nevada	128	4	2	3	2	1	1	...	...	141
New Hampshire	132	53	18	11	8	10	2	1	...	232
New Jersey	541	55	31	56	62	48	14	9	6	822
New Mexico	493	16	6	10	10	4	2	1	...	542
New York	2,156	137	36	69	59	50	14	6	9	2,536
North Carolina	851	78	37	26	22	20	5	5	1	1,045
North Dakota	684	40	7	6	6	3	2	....	....	748
Ohio	2,162	144	61	58	60	46	19	5	8	2,563
Oklahoma	857	63	35	21	24	17	4	...	2	1,023
Oregon	442	34	15	21	13	8	2	...	1	536
Pennsylvania	3,671	182	92	97	132	72	10	9	6	4,271
Rhode Island	98	6	2	4	8	10	3	3	1	135
South Carolina	561	38	15	21	22	6	1	3	...	667
South Dakota	587	33	10	6	6	4	1	1	...	648
Tennessee	1,740	48	14	23	23	9	3	...	4	1,861
Texas	2,801	167	88	75	77	51	4	9	7	3,279
Utah	247	36	11	10	11	1	1	1	1	319
Vermont	376	70	16	18	8	2	1	...	...	491
Virginia	1,794	40	18	13	19	10	5	3	3	1,905
Washington	619	44	21	14	11	11	5	...	3	728
West Virginia	1,894	54	25	15	15	6	4	3	...	2,016
Wisconsin	1,319	92	37	20	24	15	12	5	1	1,525
Wyoming	224	6	8	9	1	4	1	...	...	253
Total	51,240	2,990	1,235	1,249	1,204	838	256	129	108	59,249

* Towns under 1,000 from 1940 Census; others from 1950 preliminary data.

Number of Families in the U. S.

Source: U. S. Bureau of the Census.

Area	1930 Number	% White	% Negro	Area	1940 Number	% White	% Negro
Urban	17,372,524	92.1	7.6	Urban	20,648,432	91.7	8.0
Rural-nonfarm	5,927,502	91.1	8.4	Rural-nonfarm	7,225 889	92.3	7.3
Rural-farm	6,604,637	84.5	14.8	Rural-farm	7,074,345	85.8	13.5
Total	29,904,663	90.2	9.4	Total	34,948,666	90.6	9.0

NOTE: 1950 (preliminary): urban, 25,467,000; rural-nonfarm, 7,701,000; rural-farm, 5,620,000; total, 38,788,000.

Death by Selected Causes, 1949–50

(Excludes fetal deaths and deaths among armed forces overseas.)

Cause of death	1949		1950[1]	
	Deaths	Rate[2]	Deaths	Rate[2]
Tuberculosis, all forms	39,100	26.3	33,633	22.2
Syphilis and its sequelae	8,581	5.8	8,008	5.3
Typhoid fever	161	0.1	90	0.1
Dysentery, all forms	1,440	1.0	1,020	0.7
Diphtheria	574	0.4	432	0.3
Whooping cough	727	0.5	1,168	0.8
Meningococcal infections	917	0.6	981	0.6
Acute poliomyelitis	2,720	1.8	1,686	1.1
Measles	949	0.6	415	0.3
Malignant neoplasms, etc. (principally cancer)	206,325	138.9	211,090	139.6
Diabetes mellitus	25,089	16.9	25,076	16.6
Nonmeningococcal meningitis	2,147	1.4	2,045	1.4
Major cardiovascular-renal diseases	746,434	502.5	770,699	509.6
Diseases of cardiovascular system	720,499	485.0	745,132	492.7
Vascular lesions of central nervous system	149,953	100.9	156,513	103.5
Rheumatic fever	2,304	1.6	2,187	1.4
Diseases of heart	518,568	349.1	535,920	354.4
Hypertension[3]	42,625	28.7	43,002	28.4
Chronic nephritis, etc.	25,935	17.5	25,567	16.9
Influenza and pneumonia, etc.	44,640	30.0	47,093	31.1
Ulcer of stomach and duodenum	7,809	5.3	8,053	5.3
Gastritis, duodenitis, enteritis, etc.	9,970	6.7	7,437	4.9
Cirrhosis of liver	13,694	9.2	13,058	8.6
Acute nephritis, etc.	3,597	2.4	3,562	2.4
Complications of pregnancy, etc.	3,216	2.2	2,567	1.7
Congenital malformations	18,864	12.7	18,419	12.2
Senility, etc., and ill-defined conditions	23,520	15.8	26,146	17.3
Motor-vehicle accidents	31,701	21.3	33,577	22.2
All other accidents	58,405	39.3	57,043	37.7
Suicide	16,993	11.4	17,179	11.4
Homicide	8,033	5.4	7,258	4.8

[1] Estimated figures. [2] Per 100,000 estimated midyear population excluding armed forces overseas. [3] Without mention of heart and general arteriosclerosis. *Source:* Federal Security Agency, Public Health Service.

Population of U. S. by Color, Sex and Age, 1949 and 1950

Age	White males*		White females*		Nonwhite males*		Nonwhite females*	
	1949†	1950‡	1949†	1950‡	1949†	1950‡	1949†	1950‡
Under 5	7,113,000	7,335,000	6,781,000	7,053,000	955,000	983,000	956,000	970,000
5 to 9	5,977,000	5,974,000	5,709,000	5,703,000	888,000	851,000	879,000	713,000
10 to 14	4,928,000	4,932,000	4,742,000	4,926,000	748,000	748,000	743,000	755,000
15 t 19	4,777,000	4,674,000	4,638,000	4,759,000	664,000	628,000	673,000	672,000
20 to 24	5,275,000	4,840,000	5,244,000	5,189,000	676,000	617,000	690,000	681,000
25 to 29	5,344,000	5,303,000	5,504,000	5,495,000	630,000	621,000	679,000	674,000
30 to 34	4,957,000	5,220,000	5,205,000	5,314,000	547,000	515,000	638,000	552,000
35 to 39	4,789,000	4,901,000	4,947,000	5,106,000	518,000	575,000	589,000	611,000
40 to 44	4,441,000	4,530,000	4,525,000	4,513,000	451,000	499,000	495,000	516,000
45 to 49	4,065,000	4,131,000	4,122,000	4,042,000	430,000	389,000	476,000	428,000
50 to 54	3,705,000	3,686,000	3,749,000	3,882,000	345,000	350,000	357,000	356,000
55 to 59	3,381,000	3,344,000	3,400,000	3,353,000	278,000	264,000	282,000	269,000
60 to 64	2,803,000	2,830,000	2,824,000	2,753,000	214,000	199,000	202,000	168,000
65 to 69	2,036,000	2,155,000	2,142,000	2,471,000	154,000	209,000	140,000	225,000
70 to 74	1,421,000	1,488,000	1,585,000	1,709,000	104,000	122,000	101,000	106,000
75 and over	1,506,000	1,636,000	1,814,000	1,986,000	124,000	101,000	144,000	114,000
Total	66,516,000	66,961,000	66,930,000	68,254,000	7,726,000	7,672,000	8,043,000	7,810,000
14 and over	49,448,000	49,673,000	50,617,000	51,508,000	5,275,000	5,250,000	5,605,000	5,483,000
21 and over	42,697,000	43,144,000	44,061,000	44,851,000	4,336,000	4,355,000	4,655,000	4,568,000
Median age**	29.9	30.4	30.8	30.9	24.5	25.1	25.6	25.8

* Including armed forces overseas. † As of July 1. Estimates are rounded to nearest thousand without being adjusted to group totals, which are independently rounded. ‡ 1950 Census (preliminary figures). ** Based on unrounded, absolute figures. *Source:* U. S. Bureau of the Census.

A Brief Summary of Naturalization Requirements and Procedure

Source: Immigration and Naturalization Service.

Generally, an applicant for naturalization must have been lawfully admitted to the United States for permanent residence.

The first step toward becoming a citizen is to make a declaration of intention, commonly called taking out the first paper. An applicant for the first paper must be at least 18 years old and may take out the first paper at any time after arrival as a permanent resident and at any place where a naturalization court is located.

When applying for the first paper, an applicant must fill out Form N-300. After the Government receives and checks the Form N-300, the applicant is notified as to when and where to get the first paper. The clerk of the court fills out the first paper, using the information the applicant gave in Form N-300. The applicant must sign the first paper before the clerk of the court and swear that the statements in it are true. The fee for this is $3.

In taking the second step toward getting a certificate of naturalization (second paper), a preliminary application must be made on Form N-400. The petition for naturalization is filed with the clerk of the court. An applicant who is required by law to attach a declaration of intention to his petition must be at least 20 years old on the day he files the petition. This age limitation does not affect a person applying under a section of the law that does not require the applicant to have a declaration of intention.

An applicant must demonstrate an understanding of the English language, including an ability to read, write and speak words in ordinary usage in English (unless physically unable to do so, or unless 50 years of age on Sept. 23, 1950, and a legal resident of the United States to that date).

An applicant must have lived continuously in the United States for the number of years required by law; for aliens who are required to have a first paper, that is five years; they must have lived at least the last six months of that five-year period in the state where they apply for the second paper. For wives and husbands of citizens of the United States and some of the other aliens who do not need a first paper it means one, two, or three years, depending on the date of marriage or other facts of the case.

The applicant will be notified by the Immigration and Naturalization office when and where to come for his first hearing. He must take with him two citizen witnesses. An examiner questions them separately to make sure the applicant meets the requirements. If the examiner is satisfied that the applicant does, he helps him file a petition for naturalization. The fee for this is $8.

Generally, after the petition is filed, the applicant is notified to appear in the naturalization court for a final hearing. If his petition is granted, the applicant must under oath renounce allegiance to any foreign state of which he is a citizen or subject, and swear allegiance to the United States.

The examiner may recommend that an application for citizenship be granted, denied, or put off until the applicant is better prepared. If the examiner recommends that the petition be denied, notice of this recommendation is sent to the applicant before the case is put on the court calendar for final hearing. The applicant may ask to be examined by the judge in court if he feels that the examiner's recommendation is not just.

Naturalization Statistics Since 1907

Period	Declarations filed	Petitions filed			Persons naturalized		
		Civilian	Military	Total	Civilian	Military	Total
1907 to 1910	526,322	.....	.....	164,036	111,738	.....	111,738
1911 to 1920	2,686,909	1,137,084	244,300	1,381,384	884,672	244,300	1,128,972
1921 to 1930	2,709,014	1,827,073	57,204	1,884,277	1,716,979	56,206	1,773,185
1931 to 1940	1,369,479	1,612,411	24,702	1,637,113	1,498,573	19,891	1,518,464
1941	224,123	.....	.....	277,807	275,747	1,547	277,294
1942	221,796	341,979	1,508	343,487	268,762	1,602	270,364
1943	115,664	338,885	38,240	377,125	281,459	37,474*	318,933
1944	42,368	275,486	50,231	325,717	392,766	49,213*	441,979
1945	31,195	172,905	23,012	195,917	208,707	22,695*	231,402
1946	28,787	110,071	13,793	123,864	134,849	15,213*	150,062
1947	37,771	70,767	18,035	88,802	77,442	16,462*	93,904
1948	60,187	.....	.....	68,265	69,080	1,070	70,150
1949	64,866	.....	.....	71,044	64,138	2,456	66,594
1950	93,527	.....	.....	66,038	64,279	2,067	66,346
1907 to 1950	8,212,008	.....	.....	7,004,876	6,049,191	470,196	6,519,337

* Members of the armed forces include 1,425 naturalized overseas in 1943; 6,496 in 1944; 5,686 in 1945; 2,054 in 1946; and 5,370 in 1947.

Immigration by Country of Origin, 1820 to 1950

Source: Immigration and Naturalization Service.

(Figures are totals, not annual averages, and were tabulated as follows: 1820–67, alien passengers arrived; 1868–91 and 1895–97, immigrant aliens arrived; 1892–94 and 1898 to present, immigrant aliens admitted. Data before 1906 relate to country whence alien came; since 1906, to country of last permanent residence.)

Countries	1820–1900	1901–1910	1911–1920	1921–1930	1931–1940	1941–1950	1820–1950
Europe: Albania[1]	.....	.....	.....	1,663	2,040	85	3,788
Austria[2]	1,027,195	2,145,266	453,649	32,868	3,563	24,860	4,172,104
Belgium	62,161	41,635	33,746	15,846	4,817	12,189	170,394
Bulgaria[3]	160	39,280	22,533	2,945	938	375	66,231
Czechoslovakia[1]	.....	.....	3,426	102,194	14,393	8,347	128,360
Denmark	192,768	65,285	41,983	32,430	2,559	5,393	340,418
Estonia[1]	.....	.....	.....	1,576	506	212	2,294
Finland[1]	.....	.....	756	16,691	2,146	2,503	22,096
France	397,489	73,379	61,897	49,610	12,623	38,809	633,807
Germany[3]	5,010,248	341,498	143,945	412,202	114,058	226,578	6,248,529
Great Britain: England	1,824,054	388,017	249,944	157,420	21,756	112,252	2,753,443
Scotland	368,280	120,469	78,357	159,781	6,887	16,131	749,905
Wales	42,076	17,464	13,107	13,012	735	3,209	89,603
Not specified[4]	793,741	.....	.....	.....	.....	.....	793,741
Greece	18,685	167,519	184,201	51,084	9,119	8,973	439,581
Hungary[3]	.....	.....	442,693	30,680	7,861	3,469	4,172,104
Ireland	3,873,104	339,065	146,181	220,591	13,167	25,377	4,617,485
Italy	1,040,479	2,045,877	1,109,524	455,315	68,028	57,661	4,776,884
Latvia[1]	.....	.....	.....	3,399	1,192	361	4,952
Lithuania[1]	.....	.....	.....	6,015	2,201	683	8,899
Luxemburg[1]	.....	.....	.....	727	565	820	2,112
Netherlands	127,681	48,262	43,718	26,948	7,150	14,860	268,619
Norway[5]	474,684	190,505	66,395	68,531	4,740	10,100	814,955
Poland[6]	165,182	.....	4,813	227,734	17,026	7,571	422,326
Portugal	63,840	69,149	89,732	29,994	3,329	7,423	263,467
Rumania[7]	19,109	53,008	13,311	67,646	3,871	1,076	158,021
Spain	41,361	27,935	68,611	28,958	3,258	2,898	173,021
Sweden[5]	771,631	249,534	95,074	97,249	3,960	10,665	1,228,113
Switzerland	202,479	34,922	23,091	29,676	5,512	10,547	306,227
Turkey in Europe	5,824	79,976	54,677	14,659	737	580	156,453
U.S.S.R.[8]	761,742	1,597,306	921,201	61,742	1,356	548	3,343,895
Yugoslavia[2]	.....	.....	1,888	49,064	5,835	1,576	58,363
Other Europe	1,940	665	8,111	9,603	2,361	5,573	28,253
Total Europe	17,285,913	8,136,016	4,376,564	2,477,853	348,289	621,704	33,246,339
Asia: China	305,455	20,605	21,278	29,907	4,928	16,709	398,882
India	696	4,713	2,082	1,886	496	1,761	11,634
Japan[9]	28,547	129,797	83,837	33,462	1,948	1,555	279,146
Turkey in Asia[10]	29,088	77,393	79,389	19,165	328	218	205,581
Other Asia	5,883	11,059	5,973	12,980	7,644	11,537	55,076
Total Asia	369,669	243,567	192,559	97,400	15,344	31,780	950,319
America: Canada & Newfoundland[11]	1,051,275	179,226	742,185	924,515	108,527	171,718	3,177,446
Central America	2,173	8,192	17,159	15,769	5,861	21,665	70,819
Mexico[12]	28,003	49,642	219,004	459,287	22,319	60,589	838,844
South America	12,105	17,280	41,899	42,215	7,803	21,831	143,133
West Indies	125,598	107,548	123,424	74,899	15,502	49,725	496,696
Other America[13]	.....	.....	.....	31	25	29,276	29,332
Total America	1,219,154	361,888	1,143,671	1,516,716	160,037	354,804	4,756,270
Africa	2,213	7,368	8,443	6,286	1,750	7,367	33,427
Australia & New Zealand	19,679	11,975	12,348	8,299	2,231	13,805	68,337
Pacific Islands	7,810	1,049	1,079	427	780	5,437	16,582
Countries not specified	219,168	33,523[14]	1,147	228	.....	142	254,208
Total all countries	19,123,606	8,795,386	5,735,811	4,107,209	528,431	1,035,039	39,325,482

[1] Countries established since beginning of World War I are theretofore included with countries to which they belonged. [2] Data for Austria-Hungary not reported until 1861. Austria and Hungary recorded separately after 1905. Austria included with Germany 1938–45. [3] Bulgaria, Serbia, Montenegro first reported in 1899. Bulgaria reported separately since 1920. In 1920, separate enumeration for Kingdom of Serbs, Croats, Slovenes; since 1922, recorded as Yugoslavia. [4] For United Kingdom. [5] Norway included with Sweden 1820–68. [6] Included with Austria-Hungary, Germany and Russia 1899–1919. [7] No record of immigration until 1880. [8] Since 1931, U.S.S.R. has been broken down into European Russia and Siberia or Asiatic Russia. [9] No record of immigration until 1861. [10] No record of immigration until 1869. [11] Includes all British North American possession 1820–98. [12] No record of immigration 1886–93. [13] Included with "Countries not specified" prior to 1925. [14] Includes 32,897 persons returning in 1906 to their homes in U. S.

U. S. Foreign-born Population by Country of Birth

Source: U. S. Bureau of the Census.

Country of birth	Total foreign-born 1900	Foreign-born white 1910	1920	1930	1940	Per cent[1] 1930	1940
Northwestern Europe							
England	840,513	876,455	812,828	803,684	621,975	5.8	5.4
Scotland	233,524	261,034	254,567	351,323	279,321	2.5	2.4
Wales	93,586	82,479	67,066	60,205	35,360	.4	.3
Northern Ireland	1,615,459	1,352,155	1,037,233	178,832	106,416	1.3	.9
Eire				744,810	572,031	5.3	5.0
Norway	336,388	403,858	353,862	347,852	262,088	2.5	2.3
Sweden	582,014	665,183	625,580	595,250	445,070	4.3	3.9
Denmark	153,690	181,621	189,154	179,474	138,175	1.3	1.2
Iceland				2,764	2,104	...	...
Netherlands	94,931	120,053	131,766	133,133	111,064	1.0	1.0
Belgium	29,757	49,397	62,686	64,194	53,958	.5	.5
Luxemburg	3,031	3,068	12,585	9,048	6,886	.1	.1
Switzerland	115,593	124,834	118,659	113,010	88,293	.8	.8
France	104,197	117,236	152,890	135,265	102,930	1.0	.9
Central Europe							
Germany	2,663,418	[2]2,311,085	1,686,102	1,608,814	1,237,772	11.5	10.8
Poland	383,407	[2]937,884	1,139,978	1,268,583	993,479	9.1	8.7
Czechoslovakia	.....	.....	362,436	491,638	319,971	3.5	2.8
Austria	432,798	[2]845,506	575,625	370,914	479,906	2.7	4.2
Hungary	145,714	495,600	397,282	274,450	290,228	2.0	2.5
Yugoslavia	.....	.....	169,437	211,416	161,093	1.5	1.4
Eastern Europe							
U.S.S.R.	423,726	[3]1,184,382	1,400,489	1,153,624	1,040,884	8.2	9.1
Latvia				20,673	18,636	.1	.2
Estonia				3,550	4,178	...	...
Lithuania			135,068	193,606	165,771	1.4	1.5
Finland	62,641	129,669	149,824	142,478	117,210	1.0	1.0
Rumania	15,032	65,920	102,823	146,393	115,940	1.0	1.0
Bulgaria	.....	11,453	10,477	9,399	8,888	.1	.1
Turkey in Europe	[3]9,910	32,221	5,284	2,257	4,412	...	...
Southern Europe							
Greece	8,515	101,264	175,972	174,526	163,252	1.2	1.4
Italy	484,027	1,343,070	1,610,109	1,790,424	1,623,580	12.8	14.2
Spain	7,050	21,977	49,247	59,033	47,707	.4	.4
Portugal	30,608	57,623	67,453	69,993	62,347	.5	.5
Other Europe	2,251	[4]12,851	11,509	25,065	19,819	.2	.2
Asia							
Palestine	(3)	[5]59,702	3,202	6,135	7,047	...	.1
Syria			51,900	57,227	50,859	.4	.4
Turkey in Asia			11,014	46,651	52,479	.3	.5
Other Asia	120,248	4,612	44,334	47,567	39,524	.3	.3
America							
Canada-French	395,126	385,083	307,786	370,852	273,366	2.7	2.4
Canada-other	784,796	810,987	810,092	907,660	770,753	6.5	6.7
Newfoundland	(6)	5,076	13,242	23,971	21,361	.2	.2
Mexico	103,393	219,802	478,383	639,017	377,433	4.6	3.3
Cuba	11,081	12,869	12,843	16,089	15,277	.1	.1
Other West Indies	14,354	10,300	13,526	15,511	15,257	.1	.1
Central America	3,897	1,507	4,074	7,791	7,638	.1	.1
South America	4,733	7,562	16,855	30,333	28,770	.2	.3
All other							
Australia	6,807	8,938	10,801	12,720	10,998	.1	.1
Azores	9,768	15,795	33,788	35,432	25,751	.3	.2
Other Atlantic islands			5,196	4,053	3,232	...	...
Other and not reported	15,293	15,434	17,727	18,716	18,649	.1	.2
Total	10,341,276	13,345,545	13,712,754	13,983,405	11,419,133	100.0	100.0

[1] Percentages not shown are less than one-tenth of one percent.

[2] Persons reported in 1910 as of Polish mother tongue born in Austria, Germany, and Russia have been deducted from their respective countries and combined as Poland.

[3] Turkey in Asia included with Turkey in Europe prior to 1910.

[4] Includes 4,635 persons born in Serbia and 5,363 persons born in Montenegro, which became part of Yugoslavia in 1918.

[5] Turkey in Asia included Armenia, Palestine, and Syria in 1910. Subsequent to 1910 Armenia included with "Other Asia." [6] Newfoundland included with Canada in 1900.

Immigration to U. S., 1820 to 1950

Source: Immig. and Naturalization Service.

Year	No. of persons*	Year	No. of persons*	Year	No. of persons*	Year	No. of persons*
1820	8,385	1853	368,645	1886	334,203	1919	141,132
1821	9,127	1854	427,833	1887	490,109	1920	430,001
1822	6,911	1855	200,877	1888	546,889	1921	805,228
1823	6,354	1856	200,436	1889	444,427	1922	309,556
1824	7,912	1857	251,306	1890	455,302	1923	522,919
1825	10,199	1858	123,126	1891	560,319	1924	706,896
1826	10,837	1859	121,282	1892	579,663	1925	294,314
1927	18,875	1860	153,640	1893	439,730	1926	304,488
1828	27,382	1861	91,918	1894	285,631	1927	335,175
1829	22,520	1862	91,985	1895	258,536	1928	307,255
1830	23,322	1863	176,282	1896	343,267	1929	279,678
1831	22,633	1864	193,418	1897	230,832	1930	241,700
1832	60,482	1865	248,120	1898	229,299	1931	97,139
1833	58,640	1866	318,568	1899	311,715	1932	35,576
1834	65,365	1867	315,722	1900	448,572	1933	23,068
1835	45,374	1868	138,840	1901	487,918	1934	29,470
1836	76,242	1869	352,768	1902	648,743	1935	34,956
1837	79,340	1870	387,203	1903	857,046	1936	36,329
1838	38,914	1871	321,500	1904	812,870	1937	50,244
1839	68,069	1872	404,806	1905	1,026,499	1938	67,895
1840	84,066	1873	459,803	1906	1,100,735	1939	82,998
1841	80,289	1874	313,339	1907	1,285,349	1940	70,756
1842	104,565	1875	227,498	1908	782,870	1941	51,776
1843	52,496	1876	169,986	1909	751,786	1942	28,781
1844	78,615	1877	141,857	1910	1,041,570	1943	23,725
1845	114,371	1878	138,469	1911	878,587	1944	28,551
1846	154,416	1879	177,826	1912	838,172	1945	38,119
1847	234,968	1880	457,257	1913	1,197,892	1946	108,721
1848	226,527	1881	669,431	1914	1,218,480	1947	147,292
1849	297,024	1882	788,992	1915	326,700	1948	170,570
1850	369,980	1883	603,322	1916	298,826	1949	188,317
1851	379,466	1884	518,592	1917	295,403	1950	249,187
1852	371,603	1885	395,346	1918	110,618		

* From 1820–67, figures represent alien passengers arrived; 1868–91 and 1895–97, immigrant aliens arrived; 1892–94 and 1898 to present, immigrant aliens admitted.

Population of Territories and Possessions

Source: U. S. Bureau of the Census.

Area	1930	1940	1950
United States	122,775,046	131,669,275	150,697,361
Alaska	59,278	72,524	128,643
American Samoa	10,055	12,908	18,937
Canal Zone	39,467	51,827	52,822
Guam	18,509	22,290	59,498
Hawaii	368,336	423,330	499,794
Philippines[1]	13,513,000	16,356,000	.....
Puerto Rico	1,543,913	1,869,255	2,210,703
Virgin Is. of U. S.	22,012	24,889	26,665
Total[2]	138,349,616	150,502,298	153,694,423

[1] The Philippines became independent on July 4, 1946. [2] Does not include armed forces overseas and the trust territory, acquired in 1947, of the Mariana, Caroline, and Marshall Islands.

One Accidental Death Every 5 Minutes in 1950

Source: National Safety Council.

The nation's 1950 accident totals can be figured at the following approximate rates:

Class of accident		One every
All accidents	Deaths	6 minutes
	Injuries	4 seconds
Motor-vehicle	Deaths	15 minutes
	Injuries	26 seconds
Occupational	Deaths	34 minutes
	Injuries	16 seconds
Workers off-job	Deaths	16 minutes
	Injuries	12 seconds
Home	Deaths	19 minutes
	Injuries	8 seconds
Public non-motor-vehicle	Deaths	36 minutes
	Injuries	18 seconds

Death Rates for Selected Causes, 1910–48

(Exclusive of fetal deaths. Rates per 100,000 estimated midyear population)

Source: Federal Security Agency, Public Health Service.

Cause	1910	1920	1930	1940[1]	1948[1]
Accidents[2]	82.7[3]	60.7[3]	53.8	47.3	45.0
Appendicitis	10.8	13.2	15.2	9.9	2.9
Cancer[4]	76.2	83.4	97.4	120.0	134.9
Cirrhosis of liver	13.3	7.1	7.2	8.6	11.3
Diabetes mellitus	15.3	16.1	19.1	26.5	26.5
Diphtheria	21.1	15.3	4.9	1.1	.4
Heart disease	158.9[5]	159.6[5]	214.2	292.0	322.8
Homicide	4.6	6.8	8.8	6.2	5.8
Influenza	14.2	70.5	19.4	15.3	3.5
Malaria	1.1	3.4	2.9	1.1	.1

Cause	1910	1920	1930	1940[1]	1948[1]
Mot.-veh. accidents	1.8[6]	10.3[6]	26.7	26.1	22.1
Nephritis	94.8	88.8	91.0	81.4	53.0
Pneumonia	141.7	136.8	83.1	54.9	35.2
Premature birth	37.7	43.6	31.5	24.5	26.8
Scarlet fever	11.4	4.6	1.9	.5	.0
Suicide	15.3	10.2	15.6	14.3	11.2
Syphilis	13.5	16.5	15.7	14.4	8.0
Tuberculosis	153.8	113.1	71.1	45.8	30.0
Typhoid[7]	22.5	7.6	4.8	1.1	.2
Whooping cough	11.6	12.5	4.8	2.2	.8

[1] Excludes armed forces overseas. [2] Other than motor-vehicle accidents. [3] Includes legal executions. [4] Includes other malignant tumors. [5] Excludes diseases of coronary arteries. [6] Excludes automobile collisions with trains and street cars, and motorcycle accidents. [7] Includes paratyphoid fever.

NOTE: Rates are for population in death-registration states: 1910—51.4% of U. S. population; 1920—80.9%; 1930—95.3%; 1940–48—100%.

Births and Deaths, by States, 1948–49

Source: Federal Security Agency, Public Health Service.

State	Births[1]				Deaths[1,2]			
	1948	Rate[3]	1949	Rate[3]	1948	Rate[3]	1949	Rate[3]
Alabama	85,372	28.6	84,418	28.1	26,620	8.9	26,750	8.9
Arizona	19,195	27.0	20,275	27.9	6,586	9.3	6,397	8.8
Arkansas	48,036	26.5	45,609	24.9	15,224	8.4	15,680	8.5
California	240,702	23.0	245,199	23.4	98,905	9.4	100,354	9.6
Colorado	33,010	27.5	32,894	26.3	12,582	10.5	12,415	9.9
Connecticut	42,229	21.3	40,887	20.4	19,569	9.9	18,829	9.4
Delaware	7,254	22.9	7,369	23.1	3,407	10.7	3,330	10.4
D. C.	20,815	23.7	19,814	23.6	8,197	9.3	8,448	10
Florida	59,600	22.9	61,743	23.0	24,767	9.5	25,376	9.5
Georgia	92,694	28.3	93,259	27.8	29,526	9.0	29,608	8.8
Idaho	16,132	29.2	15,984	27.9	4,906	8.9	4,701	8.2
Illinois	184,871	21.8	189,313	21.9	91,328	10.8	92,568	10.7
Indiana	92,529	24.2	94,214	24.2	39,514	10.4	40,026	10.3
Iowa	60,575	24.4	61,871	24.3	26,064	10.5	26,106	10.2
Kansas	42,714	23.8	43,781	23.5	18,553	10.3	18,814	10.1
Kentucky	77,176	27.3	76,197	26.6	28,050	9.9	28,046	9.8
Louisiana	73,312	28.2	75,487	28.7	23,561	9.1	23,400	8.9
Maine	22,071	25.1	21,939	24.3	9,958	11.3	10,099	11.2
Maryland	53,423	23.3	53,597	22.9	22,440	9.8	22,110	9.5
Massachusetts	97,389	20.6	95,615	20.0	52,611	11.1	50,767	10.6
Michigan	154,730	25.1	157,178	25.1	56,786	9.2	57,422	9.2
Minnesota	72,780	25.5	73,929	25.4	27,400	9.6	27,719	9.5
Mississippi	65,303	31.8	66,415	32.0	20,296	9.9	20,661	10.0
Missouri	85,258	22.2	85,302	21.8	42,752	11.2	43,825	11.2
Montana	15,035	28.1	15,366	27.3	5,884	11.0	5,878	10.5
Nebraska	31,176	25.1	31,547	24.6	12,615	10.1	12,644	9.8
Nevada	3,694	23.2	3,673	23.1	1,624	10.2	1,610	10.1
New Hampshire	12,423	24.5	11,940	22.8	6,172	12.1	6,109	11.7
New Jersey	97,580	21.0	97,606	20.4	48,076	10.3	47,880	10.0
New Mexico	20,519	34.7	21,620	34.2	5,609	9.5	5,576	8.8
New York	301,966	21.0	301,287	20.4	158,242	11.0	155,020	10 5
North Carolina	109,430	28.5	107,970	27.4	30,161	7.9	31,009	7.9
North Dakota	16,584	29.5	16,846	28.9	5,146	9.2	5,222	9.0
Ohio	186,353	23.4	189,428	23.7	80,891	10.2	80,368	10.1
Oklahoma	50,386	23.8	49,702	23.4	19,079	9.0	19,394	9.1
Oregon	35,206	23.8	35,316	23.7	14,080	9.5	13,891	9.3
Pennsylvania	227,227	22.2	224,581	21.6	109,202	10.7	108,363	10.4
Rhode Island	16,861	21.5	16,492	20.8	8,188	10.4	8,071	10.2
South Carolina	57,759	29.3	58,516	29.2	17,957	9.1	17,494	8.7
South Dakota	16,405	27.8	17,211	27.8	5,806	9.8	5,687	9.2
Tennessee	82,127	25.4	82,854	25.4	28,826	8.9	28,993	8.9
Texas	197,750	26.1	202,297	26.4	64,245	8.5	63,337	8.3
Utah	20,714	31.2	21,164	31.3	5,070	7.6	4,929	7.3
Vermont	9,369	26.2	9,297	25.3	4,096	11.4	4,132	11.3
Virginia	82,057	25.2	82,960	25.2	28,976	8.9	29,345	8.9
Washington	55,833	24.0	56,542	23.8	22,221	9.5	22,491	9.5
West Virginia	52,396	27.4	52,586	27.1	17,600	9.2	17,305	8.9
Wisconsin	81,630	25.0	82,949	24.9	32,564	10.0	32,993	9.9
Wyoming	7,418	27.6	7,490	27.1	2,385	8.9	2,385	8.6
Total U. S.	3,535,068	24.2	3,559,529	24.0	1,444,337	9.9	1,443,607	9.7

[1] By place of residence and exclusive of stillbirths. [2] Exclusive of armed forces overseas. [3] Per 1,000 estimated midyear population present in area.

Live Births by Race, U. S., 1940–49

Source: Federal Security Agency, Public Health Service.

Year	White	Negro	Indian	Chinese	Japanese	Other	Total
1940	2,067,953	278,869	9,547	1,038	1,873	1,059	2,360,399
1944	2,454,700	324,183	10,541	1,291	2,883	1,133	2,794,800
1945	2,395,563	324,264	10,172	1,382	2,336	1,133	2,735,456
1946	2,913,645	358,114	11,191	1,534	2,756	1 432	3,288,672
1947	3,274,620	406,957	11,509	2,170	3,049	1,535	3,699,940
1948	3,080,316	434,174	11,379	4,210	3,045	1,944	3,535,068
1949	3,083,721	453.235	12,332	5,062	3,237	1,942	3,559,529

Live Births by Age and Race of Parents, U. S., 1949

Source: Federal Security Agency, Public Health Service.

Age and race of mother	Age of father: Under 15	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55 & over	Not stated	All ages
White												
Under 15....	4	435	537	119	22	20	4	5	4	3	578	1,731
15–19.....	5	41,924	200,206	57,832	11,236	3,101	896	365	132	111	16,411	332,219
20–24.....	2	7,484	405,089	425,752	106,941	26,203	7,718	2,648	903	646	15,326	998,712
25–29.....	1	320	46,249	414,469	307,635	89,822	23,276	7,392	2,277	1,474	7,434	900,349
30–34.....	3	60	3,606	46,362	225,447	168,930	51,801	14,224	4,602	2,590	3,704	521,329
35–39.....	3	21	538	4,755	27,658	106,801	76,243	25,748	7,508	4,243	2,215	255,733
40–44.....	..	6	75	386	1,727	8,228	26,382	17,996	6,192	3,112	667	64,771
45–49.....	..	1	7	18	58	160	549	1,776	1,022	594	50	4,235
50 & over...	..	....	2	7	10	11	10	12	23	29	4	108
Not stated ..	..	42	682	984	718	452	223	96	36	31	1,270	4,534
All ages.....	18	50,293	656,991	950,684	681,452	403,728	187,102	70,262	22,699	12,833	47,659	3,083,721
Nonwhite												
Under 15....	14	666	377	94	15	14	5	3	4	3	2,090	3,285
15–19.....	4	13,847	42,641	12,190	2,305	867	318	149	44	39	28,405	100,809
20–24.....	3	1,265	56,540	54,632	15,416	5,649	2,070	909	289	227	19,112	156,112
25–29.....	..	66	4,881	39,319	31,052	13,716	4,805	2,291	702	506	9,550	106,888
30–34.....	..	7	458	3,889	18,945	18,719	7,710	3,327	1,191	824	4,951	60,021
35–39.....	..	8	80	609	2,376	12,216	9,741	4,657	1,560	1,254	3,000	35,501
40–44.....	..	....	11	57	186	796	3,337	2,650	989	750	753	9,529
45–49.....	..	1	1	5	15	34	86	299	168	138	69	816
50 & over...	..	....	....	1	3	3	2	4	7	11	11	42
Not stated ..	..	65	317	353	224	197	100	53	25	12	1,459	2,805
All ages.....	21	15,925	105,306	111,149	70,537	52,211	28,174	14,342	4,979	3,764	69,400	475,808

Life Expectancy in the United States

(This table, based on deaths and estimated population for 1948, indicates the average future lifetime in years of all individuals at the ages shown.)

Source: U. S. Bureau of the Census.

Age	White Males	White Females	Nonwhite Males	Nonwhite Females	Age	White Males	White Females	Nonwhite Males	Nonwhite Females
0.....	65.6	71.0	58.1	62.5	45.....	26.5	30.5	23.3	26.7
1.....	66.8	71.9	60.2	64.2	50.....	22.4	26.2	20.1	23.4
5.....	63.2	68.3	56.9	60.8	55.....	18.8	22.0	17.5	20.5
10.....	58 4	63.5	52.1	56.1	60.....	15.4	18.1	15.2	17.8
15.....	53.6	58.6	47.4	51.3	65.....	12.4	14.4	13.1	15.7
20.....	49.0	53.8	42.9	46.8	70.....	9.8	11.2	11.5	14.5
25.....	44.4	49.0	38.7	42.5	75.....	7.5	8.3	10.3	13.2
30.....	39.8	44.3	34.6	38.3	80.....	5.4	5.8	9.2	11.9
35.....	35.2	39.6	30.5	34.2	85 and over....	3.6	3.7	7.6	10.3
40.....	30.7	35.0	26.8	30.3					

Comparison with Other Years, White Males and Females

Years	At birth: Males	At birth: Females	Age 20: Males	Age 20: Females	Age 45: Males	Age 45: Females	Age 70: Males	Age 70: Females
1900–1902*.....	48.2	51.1	42.2	43.8	24.2	25.5	9.0	9.6
1919–1921†.....	56.3	58.5	45.6	46.5	26.0	27.0	9.5	9.9
1929–1931.....	59.1	62.7	46.0	48.5	25.3	27.4	9.2	10.0
1930–1939.....	60.6	64.5	46.8	49.7	25.5	28.0	9.3	10.2
1939–1941.....	62.8	67.3	47.8	51.4	25.9	28.9	9.4	10.5
1948.....	65.6	71.0	49.0	53.8	26.5	30.5	9.8	11.2

* For original death-registration area (26.2% of national population).
† For death-registration area of 1920 (80.9% of national population).

Live Births and Deaths in the United States, 1915 to 1950

(Deaths exclude fetal deaths)

Source: Federal Security Agency, Public Health Service.

Year	Births in registration states					Deaths in registration states				
	Reg. %[1]	Males	Females	Total	Rate[2]	Reg. %[1]	Males	Females	Total	Rate[2]
1915	30.9	398,615	377,689	776,304	25.0	61.6	443,928	371,572	815,500	13.2
1918	53.4	701,164	662,485	1,363,649	24.7	76.6	784,307	645,772	1,430,079	18.1
1919	58.6	705,593	667,845	1,373,438	22.4	79.6	567,185	505,078	1,072,263	12.9
1920	59.7	775,322	733,552	1,508,874	23.7	80.9	586,136	531,934	1,118,070	13.0
1921	65.2	881,591	832,670	1,714,261	24.2	80.9	533,267	476,406	1,009,673	11.5
1922	72.3	911,831	863,080	1,774,911	22.3	84.2	575,927	508,025	1,083,952	11.7
1923	72.4	921,020	871,626	1,792,646	22.1	86.5	625,259	548,806	1,174,065	12.1
1924	76.2	992,431	938,183	1,930,614	22.2	87.0	619,874	531,202	1,151,076	11.6
1925	76.2	966,973	911,907	1,878,880	21.3	88.1	641,397	550,412	1,191,809	11.7
1926	77.0	953,638	902,430	1,856,068	20.5	88.4	677,032	580,224	1,257,256	12.1
1927	87.6	1,099,287	1,038,549	2,137,836	20.5	90.0	656,697	554,930	1,211,627	11.3
1928	94.3	1,147,625	1,085,524	2,233,149	19.7	94.3	738,891	622,096	1,361,987	12.0
1929	94.7	1,114,814	1,055,106	2,169,920	18.8	94.7	745,491	624,266	1,369,757	11.9
1930	94.7	1,131,976	1,071,982	2,203,958	18.9	95.3	726,680	600,560	1,327,240	11.3
1931	94.7	1,084,404	1,028,356	2,112,760	18.0	95.3	717,630	589,643	1,307,273	11.1
1932	95.2	1,063,885	1,010,157	2,074,042	17.4	95.2	704,506	588,763	1,293,269	10.9
1933	100.0	1,068,871	1,012,361	2,081,232	16.6	100.0	737,312	604,794	1,342,106	10.7
1934	100.0	1,112,703	1,054,933	2,167,636	17.2	100.0	772,595	624,308	1,396,903	11.1
1935	100.0	1,105,489	1,049,616	2,155,105	16.9	100.0	771,320	621,432	1,392,752	10.9
1936	100.0	1,099,465	1,045,325	2,144,790	16.7	100.0	821,439	657,789	1,479,228	11.6
1937	100.0	1,130,641	1,072,696	2,203,337	17.1	100.0	808,834	641,593	1,450,427	11.3
1938	100.0	1,172,541	1,114,421	2,286,962	17.6	100.0	764,902	616,489	1,381,391	10.6
1939	100.0	1,162,600	1,102,988	2,265,588	17.3	100.0	768,877	619,020	1,387,897	10.6
1940	100.0	1,211,684	1,148,715	2,360,399	17.9[4]	100.0	791,003[3]	626,266[3]	1,417,269[3]	10.7[5]
1941	100.0	1,289,734	1,223,693	2,513,427	18.8[4]	100.0	785,033[3]	612,609[3]	1,397,642[3]	10.5[5]
1942	100.0	1,444,365	1,364,631	2,808,996	20.8[4]	100.0	780,454[3]	604,733[3]	1,385,187[3]	10.4[5]
1943	100.0	1,506,959	1,427,901	2,934,850	21.5[4]	100.0	817,485[3]	642,059[3]	1,459,544[3]	10.9[5]
1944	100.0	1,435,301	1,359,493	2,794,800	20.2[4]	100.0	789,861[3]	621,477[3]	1,411,338[3]	10.6[5]
1945	100.0	1,404,587	1,330,869	2,735,456	19.5[4]	100.0	788,053[3]	613,656[3]	1,401,719[3]	10.6[5]
1946	100.0	1,691,220	1,597,452	3,288,672	23.3[4]	100.0	785,683[3]	609,928[3]	1,395,617[3]	10.0[5]
1947	100.0	1,899,876	1,800,064	3,699,940	25.3[5]	100.0	818,234[3]	627,136[3]	1,445,370[3]	10.1[5]
1948	100.0	1,813,852	1,721,216	3,535,068	24.2[5]	100.0	820,931[3]	623,406[3]	1,444,337[3]	9.9[5]
1949	100.0	1,826,352	1,733,177	3,559,529	24.0[5]	100.0	821,291[3]	622,316[3]	1,443,607[3]	9.7[5]
1950[6]	100.0	.....	.....	3,548,000	23.5[5]	100.0	.....	.....	1,456,000	9.6[5]

[1] Represents percentage of national population living in birth- and death-registration states for each year given. [2] Per 1,000 population. [3] Excludes deaths among armed forces overseas. [4] Based on total population including armed forces overseas. [5] Based on population excluding armed forces overseas. [6] Estimated.

Motor-Vehicle Deaths by Type of Accident, 1913 to 1950

Source: National Safety Council.

Year	Deaths from collisions with—							Deaths from non-collision accidents*	Total deaths†
	Pedestrians	Other motor vehicles	Railroad trains	Street cars	Bicycles	Animal-drawn vehicle or animal	Fixed objects*		
1913	.....	.....	.....	.....	.....	.....	.....	.....	4,200
1918	.....	.....	.....	.....	.....	.....	.....	.....	10,700
1923	.....	.....	.....	.....	.....	950	.....	.....	13 400
1928	11,420	4,310	2,140	570	.....	.....	540	8,070	23,000
1933	12,840	8,470	1,437	318	400	310	900	8,680	31,365
1938	12,850	8,900	1,490	165	720	170	940	7,350	32,582
1943	9,900	5,300	1,448	171	450	160	700	5,800	23,823
1946	11,600	9,400	1,732	174	540	130	950	8,900	33,411
1947	10,450	9,900	1,735	102	550	150	1,000	8,800	32,607
1948	9,950	10 200	1,474	83	500	100	1,000	8,950	32,259
1949	8,900	10,300	1,418	50	500	100	1,000	9,250	31,500
1950	8,700	12,300	1,523	100	450	80	1,150	10,700	35,000

* The proportion of deaths allocated to fixed-object collisions and noncollision accidents is different from that reported by most states. State reports generally indicate that many accidents involving no collision on the roadway are classified as fixed-object collisions because the motor vehicle collides with an object after leaving the roadway.

† The totals do not quite equal the sum of the various types because the estimates were generally made only to the nearest 10 deaths, and to the nearest 50 deaths for certain types.

Accidental Deaths by Age, 1913 to 1950

Source: National Safety Council.

Year	0–4 years	5–14 years	15–24 years	25–44 years	45–64 years	65 years and over*	All ages
1913	9,800	7,450	11,950	24,350	16,450	12,500	82,500
1918	10,400	10,000	10,550	22,050	17,550	14,550	85,100
1923	9,450	9,550	11,100	21,250	17,150	15,900	84,400
1928	8,850	9,750	13,000	23,200	20,700	19,500	95,000
1933	6,948	8,195	12,225	21,005	20,819	21,740	90,932
1938	6,646	6,593	12,129	20,464	21,689	26,284	93,805
1943	8,039	6,636	15,278	20,212	20,109	28,764	90,038
1946	7,949	6,545	13,366	20,705	20,249	29,219	90,033
1947	8,219	6,069	13,166	21,155	20,513	30,457	99,579
1948 (5th Revision)†	8,387	5,859	12,595	20,274	19,809	31,077	98,001
1948 (6th Revision)†	8,387	5,859	12,595	20,274	19,809	27,100	94,000
1949	8,100	5,500	11,500	19,800	18,800	27,300	91,000
1950	8,000	5,500	12,500	21,000	18,500	24,500	90,000

* Includes "age unknown"; in 1948 these deaths numbered only 182. † The most recent revision of classification of deaths by cause differs so greatly from earlier classifications that two figures must be shown for 1948. That of the 5th Revision is comparable with figures for earlier years; that of the 6th Revision, with figures for later years.

Death Rates per 1,000 Population, 1900 to 1949

(Exclusive of fetal deaths)

Source: Federal Security Agency, Public Health Service.

Age, in years	1900	1920	1930	1940*	1943*	1944*	1945*	1946*	1947*	1948*	1949*
Males, all ages†	17.9	13.4	12.3	12.0	12.4	12.4	12.7	11.4	11.5	11.3	11.1
Under 1	179.1	103.6	77.0	61.7	48.2	48.3	46.8	51.1	38.1	39.4	38.4
1–4	20.5	10.3	6.0	3.1	2.8	2.5	2.2	1.9	1.7	1.7	1.6
5–14	3.8	2.8	1.9	1.2	1.1	1.1	1.0	1.0	.8	.8	.8
15–24	5.9	4.8	3.5	2.3	2.6	2.8	2.7	2.1	1.9	1.8	1.7
25–34	8.2	6.4	4.9	3.4	3.3	3.4	3.6	2.7	2.5	2.4	2.2
35–44	10.7	8.2	7.5	5.9	5.6	5.4	5.6	4.9	4.9	4.8	4.6
45–54	15.7	12.6	13.6	12.5	12.3	11.9	11.8	11.5	11.5	11.4	10.9
55–64	28.7	24.6	26.6	26.0	25.6	24.8	24.7	23.9	24.6	24.2	23.9
65–74	59.3	54.5	55.8	54.5	54.2	52.3	51.7	50.3	52.4	52.1	51.7
75–84	128.3	122.1	119.1	120.2	117.8	111.5	108.7	105.1	108.2	107.0	106.3
85 and over	268.8	253.0	236.7	240.6	246.5	232.4	233.0	236.6	251.3	254.9	246.5
Females, all ages†	16.5	12.6	10.4	9.5	9.4	9.0	8.8	8.6	8.7	85	8.3
Under 1	145.4	80.7	60.7	47.7	37.5	38.1	36.4	39.2	29.4	30.4	29.6
1–4	19.1	9.5	5.2	2.7	2.3	2.1	1.8	1.6	1.4	1.4	1.4
5–14	3.9	2.5	1.5	.9	.8	.7	.7	.7	.6	.5	.5
15–24	5.8	5.0	3.2	1.8	1.5	1.4	1.4	1.3	1.2	1.1	.9
25–34	8.2	7.1	4.4	2.7	2.4	2.2	2.1	1.9	1.8	1.6	1.5
35–44	9.8	8.0	6.1	4.5	4.1	3.9	3.8	3.5	3.4	3.2	3.0
45–54	14.2	11.7	10.6	8.6	8.1	7.7	7.5	7.2	7.1	6.8	6.5
55–64	25.8	22.4	21.2	17.9	17.2	16.3	15.8	15.1	15.0	14.5	14.0
65–74	53.6	50.5	46.8	42.0	40.8	39.0	37.8	36.8	37.3	36.4	35.8
75–84	118.8	115.9	106.6	102.6	100.3	95.0	91.4	88.3	89.4	87.1	84.6
85 and over	255.2	244.7	221.4	222.3	225.7	216.4	214.7	222.7	236.9	241.3	238.7
Male and female, all ages†	17.2	13.0	11.3	10.7	10.9	10.6	10.6	10.0	10.1	9.9	9.7
Under 1	162.4	92.3	69.0	54.8	43.0	43.3	41.7	45.3	33.8	35.0	34.1
1–4	19.8	9.9	5.6	2.9	2.6	2.3	2.0	1.8	1.6	1.6	1.5
5–14	3.9	2.6	1.7	1.0	1.0	.9	.9	.8	.7	.7	.6
15–24	5.9	4.9	3.3	2.0	2.0	2.0	1.9	1.7	1.5	1.4	1.3
25–34	8.2	6.8	4.7	3.1	2.8	2.7	2.7	2.3	2.1	2.0	1.9
35–44	10.2	8.1	6.8	5.2	4.9	4.7	4.6	4.2	4.1	4.0	3.8
45–54	15.0	12.2	12.2	10.6	10.3	9.8	9.7	9.3	9.3	9.0	8.7
55–64	27.2	23.6	24.0	22.0	21.5	20.6	20.3	19.5	19.3	19.4	18.9
65–74	56.4	52.5	51.4	48.2	47.4	45.5	44.5	43.4	44.6	44.0	43.5
75–84	123.3	118.9	112.7	110.9	108.5	102.7	99.5	96.1	98.1	96.3	94.5
85 and over	260.9	248.3	228.0	230.1	234.6	223.3	222.5	228.6	243.1	247.1	242.0

* Excluding armed forces overseas † Includes ages not reported. NOTE: Rates are for population in death-registration states: 1900—26.2% of U. S. population; 1920—80.9%; 1930—95.3%; 1940–48—100%.

Motor-Vehicle Deaths by States, 1949–50

Source: National Safety Council.

State	1949	Rate[1]	1950	Rate[1]	State	1949	Rate[1]	1950	Rate[1]
Alabama	687	11.2	836	12.3	Nebraska	256	5.5	306	6.0
Arizona	281	10.9	325	11.2	Nevada	82	9.8	112	11.9
Arkansas	393	9.3	387	8.4	New Hampshire	72	4.6	87	5.2
California	3,003	7.7	3,040	7.4	New Jersey	592	4.1	687	4.2
Colorado	318	7.3	387	8.1	New Mexico	245	10.2	248	9.0
Connecticut	201	3.4	258	4.0	New York	1,904	6.3	1,963	6.0
Delaware	81	7.5	83	7.1	North Carolina	843	8.4	989	8.6
D. C.	64	2.7	72	2.8	North Dakota	134	7.6	101	5.5
Florida	685	8.3	873	9.3	Ohio	1,716	7.0	1,723	6.4
Georgia	746	9.1	899	9.8	Oklahoma	523	7.9	500	6.8
Idaho	168	7.9	246	10.7	Oregon	355	6.3	427	6.9
Illinois	1,791	7.5	1,973	7.4	Pennsylvania	1,624	6.3	1,536	5.5
Indiana	1,121	8.8	1,124	7.8	Rhode Island	58	3.0	79	3.8
Iowa	551	6.4	587	6.1	South Carolina	548	11.0	677	12.3
Kansas	497	8.0	534	7.1	South Dakota	134	6.0	178	7.3
Kentucky	613	9.4	678	9.5	Tennessee	676	8.9	740	8.8
Louisiana	520[2]	8.9	591[2]	9.3	Texas	1,957	7.2	2,410	7.9
Maine	160	6.0	162	5.9	Utah	174	7.6	188	7.5
Maryland	462	8.0	497	7.6	Vermont	63	5.4	67	5.5
Massachusetts	471	4.2	530	4.3	Virginia	810	9.2	913	9.2
Michigan	1,441	7.2	1,607	7.3	Washington	441	5.8	502	6.2
Minnesota	540	5.9	526	5.7	West Virginia	356	8.1	370	7.9
Mississippi	386	8.0	477	9.0	Wisconsin	749	7.4	831	7.6
Missouri	799	6.4	888	6.5	Wyoming	137	9.2	150	9.5
Montana	162	7.6	202	8.7	Total U. S.	31,500[3]	7.4	35,000[3]	7.5

[1] Number of deaths per 100,000,000 vehicle-miles. [2] From state health authorities. [3] Totals are not sums of state figures. NOTE: Figures are per state traffic authorities and indicate place of accident rather than of death.

Transportation-Accident Death Rates, 1948–50

Source: National Safety Council.

Kind of transportation	Passenger mileage, in millions	Passenger deaths			All deaths[3]		
		Deaths, 1950	Rates[1]		Deaths, 1950	Rates[1]	
			1950	1948–50[2]		1950	1948–50[2]
Passenger automobiles, taxis[4]	810,000	17,600	2.2	2.1	28,000	3.5	3.4
Busses	59,000	100	0.17	0.18	670	1.1	1.2
Railroad passenger trains	31,800	184	0.58	0.25	1,495	4.7	4.2
Scheduled transport planes	8,363	96	1.1	1.3	111	1.3	1.5

[1] Per 100,000,000 miles. [2] Average death rate. [3] All persons—pedestrians, trespassers, etc., as well as passengers—killed in operation of vehicles are included. [4] Drivers of passenger automobiles are considered passengers.

Motor Vehicle Deaths by Age, 1943–50

Source: National Safety Council.

Year	Under 5 years	5–14 years	15–24 years	25–44 years	45–64 years	65 years and over*	All ages
1943	1,132	1,959	4,522	6,454	5,996	3,760	23,823
1944	1,203	2,093	4,561	6,514	5,982	3,929	24,282
1945	1,290	2,386	5,358	7,578	6,794	4,670	28,076
1946	1,568	2,508	7,445	8,955	7,532	5,403	33,411
1947	1,502	2,275	7,251	8,775	7,468	5,426	32,697
1948	1,635	2,337	7,218	8,702	7,190	5,177	32,259
1949	1,700	2,100	6,700	9,000	7,000	5,000	31,500
1950	1,800	2,100	7,800	10,400	7,700	5,200	35,000

* Includes "age unknown"; in 1948, these deaths numbered only 36.

Motor Vehicle Deaths in Largest U. S. Cities, 1949–50

Sources this page: National Safety Council.

City	Number 1949[1]	Number 1950[1]	Pop. rate 1950[2]	Regis. rate 1950[3]	City	Number 1949[1]	Number 1950[1]	Pop. rate 1950[2]	Regis. rate 1950[3]
Baltimore, Md.	93	97	10.3	4.4	Memphis, Tenn.	30	41	10.4	4.3
Boston, Mass.	56	77	9.7	5.4	Milwaukee, Wis.	49	43	6.8	2.5
Buffalo, N. Y.	46	51	8.8	2.9	Minneapolis, Minn.	39	36	7.0	2.0
Chicago, Ill.	412	392	10.9	4.7	New Orleans, La.	40	53	9.3	4.4
Cincinnati, Ohio	44	59	11.8	4.3	New York, N. Y.	563	535	6.8	4.5
Cleveland, Ohio	89	95	10.5	3.2	Newark, N. J.	32	36	8.2	3.3
Columbus, Ohio	38	44	11.7	3.3	Oakland, Calif.	40	45	11.8	3.1
Dallas, Texas	37	56	12.9	3.2	Philadelphia, Pa.	153	162	7.8	4.3
Denver, Colo.	51	40	9.7	2.7	Pittsburgh, Pa.	69	54	8.0	3.5
Detroit, Mich.	183	197	10.7	3.3	St. Louis, Mo.	80	103	12.1	3.9
Houston, Texas	51	74	12.5	3.8	San Antonio, Texas	45	53	13.0	4.1
Kansas City, Mo.	25	37	8.2	2.8	San Francisco, Calif.	54	56	7.4	2.2
Los Angeles, Calif.	259	269	13.7	3.2	Seattle, Wash.	56	50	10.8	2.6
Louisville, Ky.	40	38	9.8	3.5	Washington, D. C.	64	72	9.0	3.8

[1] Only motor-vehicle traffic deaths resulting from accidents occurring within the city are included. [2] Deaths per 100,000 population. [3] Deaths per 10,000 registered motor vehicles. Registration figures supplied by R. L. Polk & Co.

Deaths in Steam Railway Accidents, 1918 to 1950

Year	Passengers on trains*	Travelers not on trains*	Employees on duty	Persons in grade crossing accidents	Other non-trespassers†	Trespassers	Total‡
1918	521§		3,566	1,979	501	3,423	9,994
1923	149§		2,134	2,422	370	2,861	7,795
1928	104§		1,357	2,768	363	2,532	7,002
1933	47	13	571	1,638	179	3,025	5,434
1938	79	9	549	1,679	190	2,428	4,879
1943	271	13	1,089	1,876	326	1,788	5,302
1946	115	17	736	2,025	201	1,618	4,712
1947	75	12	789	1,924	193	1,459	4,452
1948	52	13	639	1,742	174	1,440	4,060
1949	29	8	443	1,609	149	1,292	3,530
1950	184	5	399	1,698	123	1,218	3,627

* Persons on or getting on or off passenger-carrying trains under conditions not constituting trespass are designated as "passengers on trains." Other persons lawfully on railway premises in connection with their journeys by railways are designated as "travelers not on trains." † Death totals in this column exclude subsequent fatalities due to lack of information. ‡ The sum of the items in the preceding columns exceeds the figure in the "Total" column because of duplication; e.g., employees killed in grade crossing accidents. § Deaths to passengers on trains and travelers not on trains are combined.

Principal Types of Accidental Deaths, 1913 to 1950

Year	Motor vehicle	Falls	All burns*	Drowning	Railroad	Firearms	Poison gases	Poisons (except gas)	All types
1913	4,200	18,700	9,350	10,000	12,500	2,400	3,550	3,200	82,500
1918	10,700	16,700	10,700	7,350	10,500	2,700	4,400	2,650	85,100
1923	18,400	16,800	9,550	7,000	8,100	2,950	2,800	2,950	84,400
1928	28,000	19,600	9,000	8,750	7,150	3,000	2,800	2,850	95,000
1933	31,363	21,746	7,341	7,465	5,410	3,026	1,668	2,334	90,932
1938	32,582	25,454	7,145	7,347	4,868	2,696	1,459	2,196	93,805
1943	23,823	28,000	10,450	7,710	5,231	2,318	2,110	1,890	99,038
1946	33,411	25,650	8,790	6,940	4,640	2,816	1,930	2,050	98,033
1947	32,697	26,950	8,940	7,260	4,399	2,386	2,000	1,960	99,579
1948 (5th Revision)†	32,259	24,800	7,668	6,500	3,976	2,270	2,002	1,713	98,001
1948 (6th Revision)†	32,259	21,300	7,150	6,500	3,800	2,330	2,020	1,600	94,000
1949	31,500	21,300	6,500	6,700	3,300	2,350	1,800	1,600	91,000
1950	35,000	18,500	6,800	6,100	3,400	2,350	1,900	1,500	90,000

* Includes burns by fire and deaths directly resulting from conflagration, regardless of nature of injury; also burns by chemicals, steam, or any other hot substance in 1948 (5th Revision) and earlier years. † The most recent revision of classification of deaths by cause differs so greatly from earlier classifications that two figures must be shown for 1948. That of the 5th Revision is comparable with figures for earlier years; that of the 6th Revision, with figures for later years.

Crude Birth and Death Rates of the World

(Number of births and deaths per 1,000 inhabitants, excluding stillbirths)

Source: Statistical Office of the United Nations.

Country	1939 Births	1939 Deaths	1947 Births	1947 Deaths	1948 Births	1948 Deaths	1949 Births	1949 Deaths	1950 Births	1950 Deaths
Australia[4]	17.6	9.9	24.1	9.7	23.1	10.0	22.9	9.5	23.3	9.6
Austria	20.7	15.3[1]	18.6	13.0	17.7	12.1	15.8	12.7	15.1	12.1
Belgium	15.5	13.9	17.8	13.3	17.6	12.6	17.2	12.9	16.5	12.4
Bulgaria	21.4	13.4	24.0[2]	13.4[2]	....	....	....	....	....	....
Canada[3]	20.4	9.7	28.6	9.4	27.0	9.3	26.9	9.2	26.5	9.0
Ceylon	36.0	21.8	39.4	14.3	40.6	13.2	39.9	12.6	40.3	12.6
Chile	33.3	23.3	33.8	16.7	33.7	17.4	33.2	18.1	32.4	15.7
Costa Rica	42.8	18.5	53.6	13.9	41.3	12.2	41.0	11.8	46.9	....
Czechoslovakia	18.6	13.3	23.8	12.0	23.4	11.5	22.1	11.7	....	....
Denmark	17.8	10.1	22.1	9.7	20.3	8.6	18.9	8.9	18.6	9.2
El Salvador	41.6	18.3	41.2	15.0	38.5	14.5	39.5	13.2	....	....
Finland	21.2	14.7	27.8	12.0[5]	27.2	11.0	25.8	11.1	24.0	10.2
France[6]	14.8	15.6	21.3	13.2	21.0	12.4	20.9	13.7	20.4	12.6
Germany, Western	....	....	....	....	16.8	10.4	17.0	10.3	16.2	10.4
Hungary	19.4	13.5	18.4	12.1	19.1	11.2	....	....	....	....
India[9]	32.7	21.6	26.6	19.7	25.5	17.2	26.8	16.0	25.9	16.5
Ireland	19.1	14.2	23.2	14.9	22.0	12.1	21.4	12.7	21.0	12.6
Israel[12]	....	....	....	....	26.8	6.6	29.6	6.8	32.9	6.5
Italy	23.6	13.4	21.9	11.4	21.6	10.5	20.0	10.4	19.6	9.8
Japan[10]	26.6	17.8	34.3	14.6	33.4	11.9	32.8	11.6	28.3	10.9
Luxemburg	15.0	12.7	14.8	12.5	14.7	11.7	....	....	....	....
Mexico	44.6	28.0	45.1	16.3	44.6	16.7	45.4	17.9	....	....
Netherlands	20.6	8.6	27.8	8.1	25.3	7.4	23.7	8.1	22.7	7.5
New Zealand[11]	18.7	9.2	26.4	9.4	25.5	9.1	24.9	9.1	24.6	9.3
Nicaragua	32.5	11.9	34.9	10.9	....	....	....	....	....	....
Norway	15.9	10.2	21.6	9.3	20.5	8.9	19.5	9.0	19.3	8.9
Panama[8]	27.9	11.4	34.7	9.1	33.6	8.1	33.0	7.1	....	....
Peru[9]	....	....	27.4	11.2	22.8	10.5	....	....	....	....
Portugal	26.2	15.3	24.1	13.3	26.3	12.8	25.0	13.8	23.8	11.9
Puerto Rico	39.6	17.7	42.6	11.9	40.2	12.0	39.0	10.7	38.6	9.9
Rumania	28.3	18.6	22.4	21.1	....	....	....	....	....	....
South Africa, U. of[7]	25.3	9.4	27.2	8.6	26.5	8.9	25.9	9.1	25.7	9.1
Spain	16.6	18.5	21.3	12.0	23.0	10.9	21.4	11.4	19.3	10.8
Sweden	15.4	11.5	18.9	10.8	18.4	9.8	17.4	10.0	16.4	10.0
Switzerland	15.2	11.8	19.3	11.3	19.2	10.8	18.3	10.6	18.1	10.1
United Kingdom	15.2	12.2	20.8	12.1	18.1	10.9	17.0	11.7	16.1	11.7
United States	17.3	10.6	25.7	10.1	24.1	9.9	23.9	9.7	23.4	9.6
Venezuela[8]	35.9	18.7	39.5	13.9	40.8	13.3	43.3	12.5	43.1	11.0

[1] Excluding deaths among armed forces. [2] Including southern Dobruja [3] Excluding Yukon, Northwest Territories and Newfoundland. [4] Excluding full-blooded aboriginals. [5] Excluding "declared dead." [6] Excluding infants born alive but who die before registration of birth. [7] European population only [8] Excluding jungle population. [9] 1939 former British provinces; 1947–50, registration area only. [10] Japanese Nationals only in 4 principal islands. [11] Excluding Maoris. [12] Jewish population only; deaths exclude war casualties.

Census Divisions of the U. S.

New England States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.

Middle Atlantic States: New York, New Jersey, Pennsylvania.

East North Central States: Ohio, Indiana, Illinois, Michigan, Wisconsin.

West North Central States: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

South Atlantic States: Delaware, Maryland, District of Columbia*, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

East South Central States: Kentucky, Tennessee, Alabama, Mississippi.

West South Central States: Arkansas, Louisiana, Oklahoma, Texas.

Mountain States: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

Pacific States: Washington, Oregon, California.

* Counted as a state for census purposes.

World Life Expectancy

Country	Years	Sex	Average future lifetime in years at age of 0	1	10	20	30	40	50	60	70
Australia	1932–34	M	63.48	65.49	58.02	48.81	39.90	31.11	22.83	15.57	9.60
		F	67.14	68.67	61.02	51.67	42.77	34.04	25.58	17.74	10.98
Austria	1930–33	M	54.47	60.55	54.08	45.18	36.86	28.65	20.96	14.15	8.59
		F	58.53	63.46	56.96	48.03	39.59	31.13	22.94	15.42	9.21
Belgium	1928–32	M	56.02	61.25	54.88	46.04	37.78	29.48	21.61	14.53	8.69
		F	59.79	63.84	57.25	48.43	40.17	31.77	23.55	15.93	9.60
Brazil	1920	Both	37.43	45.26	44.28	36.33	30.34	24.36	18.61	13.33	8.76
Bulgaria	1925–28	M	45.92	54.37	53.75	45.78	38.45	30.70	23.23	16.45	10.88
		F	46.64	53.73	53.20	45.45	38.97	31.73	24.32	17.18	11.05
Canada	1940–42	M	62.95	66.14	58.70	49.57	40.73	31.87	23.49	16.06	9.94
		F	66.29	68.73	61.08	51.76	42.81	33.99	25.46	17.62	10.93
China	1936–40	M	41.08	47.61	45.62	37.15	29.68	22.66	16.50	11.28	7.09
		F	45.73	51.46	50.78	42.37	34.83	27.70	20.65	14.18	8.74
Czechoslovakia	1929–32	M	51.92	59.90	54.04	45.29	37.15	28.96	21.24	14.35	8.67
		F	55.18	61.96	56.10	47.40	39.24	30.98	22.83	15.35	9.24
Denmark	1941–45	M	65.62	68.43	60.46	51.12	42.20	33.16	24.51	16.69	10.13
		F	67.70	69.63	61.52	52.03	42.91	33.88	25.16	17.14	10.38
Egypt	1936–38	M	35.65	42.09	46.86	39.77	32.96	26.12	19.42	13.29	7.88
		F	41.48	48.14	54.47	46.11	38.23	30.82	23.43	16.26	9.55
England and Wales	1937	M	60.18	63.33	56.25	47.10	38.32	29.57	21.40	14.32	8.58
		F	64.40	66.79	59.59	50.40	41.60	32.78	24.28	16.48	9.97
Finland	1941–45	M	54.62	57.68	51.27	42.90	35.36	27.52	20.16	13.78	8.80
		F	61.14	63.84	57.42	48.91	40.96	32.68	24.41	16.58	10.03
France	1933–38	M	55.94	59.52	52.57	43.62	35.52	27.71	20.43	13.92	8.50
		F	61.64	64.50	57.50	48.64	40.46	32.10	24.01	16.50	10.06
Germany	1932–34	M	59.86	64.43	57.28	48.16	39.47	30.83	22.54	15.11	9.05
		F	62.81	66.41	59.09	49.84	41.05	32.33	23.85	16.07	9.58
Greece	1926–30	M	49.09	53.22	52.40	44.31	37.07	29.76	22.58	16.03	10.57
		F	50.89	55.09	54.48	46.43	39.45	32.40	24.93	17.49	10.99
Hungary	1941	M	54.92	61.75	55.27	46.65	38.58	30.14	22.15	15.00	8.97
		F	58.22	64.00	57.32	48.73	40.57	32.12	23.76	16.03	9.52
India	1921–31	M	26.91	34.68	36.38	29.57	23.60	18.60	14.31	10.25	6.35
		F	26.56	33.48	33.61	27.08	22.30	18.23	14.65	10.81	6.74
Ireland	1940–42	M	59.01	63.23	56.25	47.24	38.92	30.58	22.53	15.37	9.60
		F	61.02	64.16	56.94	48.04	39.89	31.63	23.54	16.31	10.42
Italy	1930–32	M	53.76	59.71	55.46	46.75	38.58	30.39	22.45	15.16	9.05
		F	56.00	61.32	57.15	48.49	40.41	32.14	23.89	16.13	9.61
Japan	1935–36	M	46.92	51.95	48.25	40.41	33.89	26.22	18.85	12.55	7.62
		F	49.63	54.07	50.47	43.22	36.88	29.65	22.15	15.07	9 04
Mexico	1929–33	Both	.....	.....	42.50	36.20	29.80	23.50	17.60	12.30	8.00
Netherlands	1931–40	M	65.70	67.80	60.30	51.00	41.90	32.90	24.10	16.30	9.80
		F	67.20	68.60	60.80	51.50	42.30	33.30	24.70	16.80	10.20
New Zealand	1934–38	M	65.46	66.92	59.11	49.89	40.94	32.03	23.64	16.06	9 82
		F	68.45	69.46	61.45	52.02	42.98	34.05	25.47	17.49	10.73
Northern Ireland*	1936–38	M	57.80	.....	55.40	46.40	33.60	25.40	18.00	11.60	7.00
		F	59.20	.....	56.10	47.10	34.60	26.40	18.80	12.40	7.60
Norway	1921–31	M	60.98	63.51	56.27	47.73	40.39	32.40	24.41	16.97	10.63
		F	63.84	65.76	58.35	49.85	42.14	34.00	25.87	18.16	11.40
Poland	1931–32	M	48.20	56.90	52.20	43.70	36.00	27.90	20.30	13.70	8.30
		F	51.40	58.70	54.00	45.70	38.00	30.30	22.40	15.10	9.20
Portugal	1939–42	M	48.58	56.21	52.61	44.00	36.04	28.23	20.76	13.86	8.19
		F	52.82	59.23	56.86	48.35	40.35	32.17	23.98	16.20	9.59
Scotland	1930–32	M	56.00	60.70	54.90	46.00	37.40	29.10	21.30	14.10	8.40
		F	59.50	63.10	57.20	48.30	39.80	31.40	23.30	15.90	9.60
South Africa (White only)	1935–37	M	58.95	62.12	55.43	46.43	37.93	29.45	21.70	14.97	9.34
		F	63.06	65.60	58.87	49.72	40.98	32.44	24.30	16.82	10.50
Spain	1930–31	M	48.74	54.54	51.54	43.16	35.35	27.51	19.97	13.20	7.78
		F	51.94	57.23	54.46	46.12	38.32	30.33	22.38	14.93	8.83
Sweden	1941–45	M	67.06	68.43	60.45	51.23	42.57	33.64	25.02	17.19	10.52
		F	69.71	70.58	62.40	53.02	44.01	34.97	26.20	18.04	11.00
Switzerland	1939–44	M	62.68	64.75	57.08	47.92	39.26	30.42	22.08	14.75	8.85
		F	66.96	68.46	60.62	51.28	42.32	33.35	24.63	16.65	9.97
U.S.S.R. (European)	1926–27	M	41.93	51.40	51.65	43.24	35.65	28.02	20.99	14.85	9.65
		F	46.79	55.46	55.72	47.36	39.75	32.12	24.41	17.07	10.96
United States	1939–41	M	61.60	64.00	56.12	46.91	38.13	29.57	21.72	14.99	9.46
		F	65.89	67.73	59.73	50.37	41.41	32.68	24.40	16.92	10.56

* Uses 35, 45, 55, 65 and 75 years as bases after 20.

Marriage Information, by State

Sources: Questionnaires to states; and Federal Security Agency, Public Health Service.

State	Legal minimum marriage age: With parental consent M	F	Without parental consent M	F	Blood test required	Waiting period: Before license	After license	Number of marriages, 1950[2]	Rates[1]: 1949[3]	1950[2]
Alabama	17	14	21	18	yes	none	none	22,746	6.5	7.4
Arizona	18	16	21	18	no	none	none	23,866[10]	31.9	31.6[10]
Arkansas	18	16	21	18	no	3 da.	none	49,000[11]	24.0	25.3[11]
California	18[4]	16[4]	21	18	yes	none	none	78,754	7.4	7.4
Colorado	16	16	21	18	yes	none	none	13,735[10]	10.1[10]	10.2[10]
Connecticut	16	16	21	21	yes	5 da.	none	19,330	9.2	9.6
Delaware	18	16	21	18	yes	none	24 hr.[5]	2,620	8.1	8.2
D. C.	18	16	21	18	no	3 da.	none	10,197[10]	11.9[10]	13.0[10]
Florida	18	16	21	21	yes	3 da.	none	27,588	8.2	9.9
Georgia	17	14	21	18	yes	none	none	44,413[10]	16.0[10]	12.8[10]
Idaho	15	15[6]	18	18	yes	none	none	8,344	13.2	14.0
Illinois	18	16	21	18	yes	none	none	93,312[10]	10.2[10]	10.7[10]
Indiana	18	16	21	18	yes	none	none	61,647[10]	12.4[10]	15.6[10]
Iowa	16	14	21	18	yes	none	none	27,613	10.0	10.5
Kansas	18	16	21	18	yes	3 da.	none	18,648	9.4	9.7
Kentucky	16	14	21	21	yes	3 da.	none	33,545[10]	20.5[10]	11.3[10]
Louisiana	18	16	21	21	(7)	none	72 hr.	26,714[10]	9.9[11]	9.9[10]
Maine	16	16	21	18	yes	5 da.	none	8,463	8.9	9.2
Maryland	18	16	21	18	no	48 hr.	none	50,558[10]	20.5[10]	21.6[10]
Massachusetts	18	16	21	18	yes	5 da.	none	43,000[11]	8.3	9.2[11]
Michigan	18	16	18	18	yes	5 da.	none	58,183	8.5	9.1
Minnesota	16	15	18	16	no	5 da.	none	30,964[10]	9.8[10]	10.3[10]
Mississippi	14	12	21	18	no	none	none	56,562	25.4	25.6
Missouri	15[6]	15[6]	21	18	yes	3 da.	none	36,416[10]	9.5	9.2[10]
Montana	18	16	21	18	yes	none	none	7,222	12.4	12.0
Nebraska	18	16	21	21	yes	none	none	13,857[10]	9.9	10.3[10]
Nevada	18	16	21	18	no	none	none	49,872[10]	284.0[10]	311.7[10]
New Hampshire	14	13	21	18	yes	5 da.	none	7,597	14.2	14.2
New Jersey	18	18	21	18	yes	72 hr.	none	46,176	9.3	9.5
New Mexico	18	16	21	18	no	none	none	23,128	25.9	33.2
New York	16	14	21	18	yes	none	24 hr.	142,362	9.1	9.6
North Carolina	16	16	18	18	yes	none[8]	none	29,771[10]	6.9[10]	7.3[10]
North Dakota	18	15	21	18	yes	none	none	5,092	8.3	8.1
Ohio	18	16	21	21	yes	5 da.	none	73,668	7.5[11]	9.3
Oklahoma	18	15	21	18	yes	3 da.	none	22,618[10]	8.7[10]	10.0[10]
Oregon	18	15	21	18	yes	3 da.	none	11,279	7.2	7.4
Pennsylvania	16	16	21	21	yes	3 da.	none	88,478	8.1	8.4
Rhode Island	18	16	21	21	yes	5 da.	none	7,490	9.0	9.5
South Carolina	18	14	18	18	no	24 hr.	none	46,342[10]	19.7[10]	21.6[10]
South Dakota	18	15	21	18	yes	none	none	6,909	10.5	10.4
Tennessee	16	16	21	21	yes	3 da.[9]	none	21,052	4.6	6.4
Texas	16	14	21	18	yes	none	none	89,120[10]	12.5[10]	11.6[10]
Utah	16	14	21	18	yes	none	none	7,110[10]	9.5[10]	10.2[10]
Vermont	18	16	21	18	yes	none	5 da.	3,645	9.2	9.5
Virginia	18	16	21	21	yes	none	none	36,863[10]	10.1	11.1[10]
Washington	15	15	21	18	no	3 da.	none	34,437[10]	13.6[10]	14.5[10]
West Virginia	18	16	21	21	yes	3 da.	none	17,207[10]	7.1[10]	8.5[10]
Wisconsin	18	15	21	18	yes	5 da.	none	28,923	8.4	8.3
Wyoming	18	16	21	18	yes	none	none	3,498	12.4	11.9

[1] Per 1,000 estimated total midyear population present in area. [2] By place of occurrence; figures provisional. [3] By place of occurrence; figures revised. [4] Males under 18 and females under 16 may be married with consent of parents, provided Superior Court gives its permission. [5] 96 hr. if nonresidents. [6] If under 15, order must be obtained from Probate Court. [7] For males only. [8] Except in Pamlico County, 48 hr. [9] Except by court order or known by judge to be over 21. [10] Marriage licenses. [11] Estimated.

Only 4 states reported fewer marriages in 1950 than in 1949—Georgia, Kentucky, Missouri and Texas. New York had the largest number of marriages for 1947–50; Wyoming, the smallest for 1947; and Delaware, the smallest for 1948–50.

The extreme variation in the marriage rates between states can be explained in terms of the enumeration of marriages by place of occurrence. Sharp revisions in rates would undoubtedly result from the allocation of marriage to a residence basis.

Marital Status of the Population, 1940

(15 years old and over)

Source: U. S. Bureau of the Census.

State	Single*		Married		Widowed		Divorced	
	Male	Female	Male	Female	Male	Female	Male	Female
Alabama	291,246	232,468	603,014	609,036	36,637	124,988	6,936	12,473
Arizona	59,602	34,974	108,813	107,277	7,817	18,600	4,146	4,038
Arkansas	199,300	137,052	438,087	437,562	32,280	81,981	8,054	10,956
California	918,978	570,269	1,701,632	1,679,001	114,276	360,840	86,012	109,078
Colorado	132,778	92,675	261,748	260,043	20,096	49,661	8,547	9,765
Connecticut	240,788	214,005	390,950	389,206	28,537	71,570	4,750	6,729
Delaware	34,979	26,865	62,504	62,332	5,141	12,120	900	1,152
D. C.	90,495	85,052	154,108	155,834	9,636	38,468	4,037	7,276
Florida	206,116	145,365	452,394	453,726	33,501	103,144	11,244	16,895
Georgia	330,589	266,822	671,341	679,028	41,895	154,322	8,176	14,363
Idaho	67,778	36,638	120,777	119,132	7,676	15,690	3,984	3,044
Illinois	1,013,928	803,776	1,892,349	1,884,288	139,070	355,305	43,516	57,008
Indiana	385,364	290,237	837,496	831,880	63,246	149,656	21,241	26,128
Iowa	309,801	238,801	596,167	593,452	43,472	103,351	13,372	16,002
Kansas	209,707	160,372	430,354	427,379	31,499	79,161	10,921	12,170
Kentucky	316,292	237,071	626,343	621,185	42,709	111,637	11,522	14,819
Louisiana	259,400	199,905	518,257	525,295	33,893	106,649	6,809	11,233
Maine	102,525	80,590	188,551	187,838	17,290	37,650	5,237	6,238
Maryland	239,221	182,883	419,021	418,094	30,552	81,796	6,705	9,125
Massachusetts	598,247	594,478	934,173	933,261	77,181	202,340	14,677	21,938
Michigan	652,094	453,648	1,254,575	1,238,505	85,063	188,627	33,547	35,891
Minnesota	408,015	303,569	610,648	606,429	45,242	102,954	11,571	14,721
Mississippi	217,339	164,617	472,066	476,379	30,495	94,849	5,726	9,794
Missouri	429,984	341,598	910,812	910,728	68,918	185,077	21,908	29,996
Montana	86,219	44,251	125,964	123,692	9,734	19,013	4,907	3,781
Nebraska	163,643	125,067	304,686	303,781	21,804	51,187	6,478	7,657
Nevada	17,889	6,208	26,892	25,510	1,856	3,622	2,013	1,311
New Hampshire	61,971	53,017	110,835	110,555	10,579	23,217	3,027	3,426
New Jersey	562,640	479,217	981,976	979,936	70,657	186,602	9,547	14,828
New Mexico	58,365	39,559	110,562	109,765	8,098	16,450	2,443	2,984
New York	1,861,537	1,598,119	3,157,750	3,149,635	226,595	625,031	31,424	51,755
North Carolina	408,975	343,946	731,906	737,836	39,354	130,957	6,366	11,064
North Dakota	98,930	64,338	128,974	128,291	9,218	17,813	1,793	1,988
Ohio	832,054	670,983	1,662,583	1,647,217	122,948	297,646	41,662	53,659
Oklahoma	246,312	171,037	536,897	533,799	36,548	93,473	15,188	20,297
Oregon	139,949	85,121	272,700	269,369	19,708	47,160	12,504	11,868
Pennsylvania	1,330,989	1,119,812	2,207,727	2,201,633	173,763	414,612	23,994	32,054
Rhode Island	98,973	94,789	155,316	155,763	12,281	31,552	2,620	4,252
South Carolina	210,968	177,937	378,717	384,446	20,913	80,995	1,848	3,295
South Dakota	90,923	61,205	138,578	137,808	10,017	20,752	2,539	2,710
Tennessee	310,391	249,825	648,394	650,230	42,492	130,028	10,904	17,574
Texas	699,956	502,692	1,481,163	1,476,836	95,282	272,819	36,222	53,287
Utah	62,174	45,330	119,795	119,555	5,826	18,368	2,749	3,548
Vermont	46,734	34,267	78,948	78,403	7,447	16,958	1,916	2,029
Virginia	341,510	254,055	573,724	572,299	37,348	111,782	8,348	11,875
Washington	244,035	138,440	424,749	418,969	31,920	74,409	18,658	18,489
West Virginia	226,188	164,932	409,892	406,304	24,814	60,687	6,353	8,446
Wisconsin	423,760	316,735	707,719	702,248	54,530	117,556	15,203	17,604
Wyoming	36,944	17,160	58,360	56,865	3,698	6,967	2,154	1,875
1940 totals	16,376,595	12,751,772	30,191,087	30,087,135	2,143,552	5,700,092	624,398	822,563
% of each sex	33.2	25.8	61.2	61.0	4.3	11.5	1.3	1.7
1940 urban	9,218,434	8,256,093	17,488,846	17,535,268	1,195,146	3,742,439	410,037	632,292
% of each sex	32.6	27.4	61.8	58.1	4.2	12.4	1.4	2.1
1940 rural-nonfarm	3,129,750	2,164,104	6,250,430	6,185,943	456,080	1,113,076	129,197	127,600
% of each sex	31.4	22.6	62.7	64.5	4.6	11.6	1.3	1.3
1940 rural-farm	4,028,411	2,331,575	6,451,811	6,365,924	492,326	844,577	85,164	62,671
% of each sex	36.4	24.3	58.3	66.3	4.5	8.8	0.8	0.7
1890 totals	8,708,130	6,250,912	11,205,205	11,124,785	815,437	2,154,598	49,100	71,883
1900 totals	10,402,543	7,606,772	13,955,650	13,810,057	1,177,976	2,717,715	84,230	114,647
1910 totals	12,705,653	9,001,342	18,092,600	17,684,687	1,471,390	3,176,228	156,162	185,068
1920 totals	13,077,805	9,667,653	21,849,266	21,318,933	1,758,308	3,917,625	235,284	273,304
1930 totals	15,039,398	11,359,038	26,327,109	26,170,756	2,025,036	4,734,207	489,478	573,148

* Includes persons of unknown marital status.

Grounds for Divorce

Source: Questionnaires to the states.

State	Adultery	Cruelty	Desertion	Alcoholism	Impotence	Felony conviction	Neglect to provide	Insanity	Pregnancy at marriage[1]	Bigamy	Separation	Indignities	Drug addiction	Violence	Fraudulent contract	Others
Alabama	yes	yes	yes[2]	yes	yes	yes	yes[3]	yes[4]	yes	...	...	...	yes	...	...	.....
Arizona	yes	yes	yes	yes	yes	yes[6]	yes	...	yes	yes	yes[4]	yes	yes	yes	yes	(5-7-13)
Arkansas	yes	yes	yes[2]	yes	yes	yes	...	...	...	yes	yes[14]	yes	yes	yes	yes	(12,15,16)
California	yes	yes	yes	...	...	yes	yes	yes[14]	...	...	...	...	...	...	...	(17)
Colorado	yes	yes	yes[2]	yes	yes	yes	yes	yes[4]	...	yes	yes[2]	...	yes	yes	...	(7)
Connecticut	yes	yes	yes[14]	yes	...	yes[18]	...	yes[4]	...	...	...	...	...	...	yes	(10,17,19)
Delaware	yes	yes	yes[3]	yes[3]	...	yes[20]	yes	yes[4]	...	yes	...	...	...	...	...	(21-23)
D. C.	yes	...	yes[3]	...	...	yes	...	...	...	...	yes[4]	...	...	...	...	.....
Florida	yes	yes	yes[2]	...	yes	...	...	...	...	yes	...	...	...	yes	...	(12,17,24)
Georgia	yes	yes	yes[2]	yes	yes	yes[20]	...	...	yes	...	...	...	...	...	yes	(12,18)
Idaho	yes	yes	yes	yes	...	yes	...	yes	...	yes	...	...	yes	...	yes	(3,9,25)
Illinois	yes	yes	yes[2]	yes[3]	yes	yes	...	...	...	yes	...	...	...	...	...	(10,26,27)
Indiana	yes	yes	yes[3]	yes	yes	...	yes[3]	yes[4]	...	...	...	...	...	...	...	(10)
Iowa	yes	yes	yes[3]	yes	...	yes	...	...	...	...	...	...	...	...	...	.....
Kansas	yes	yes	yes[2]	yes	yes	yes	...	yes[4]	yes	yes	...	...	...	...	yes	(12,16)
Kentucky	yes	yes	yes	yes	yes	yes	...	yes[4]	yes	...	yes[4]	...	...	yes	yes	(11,28,29)
Louisiana	yes	yes	yes	yes	...	yes	...	...	...	...	yes[3]	...	...	...	...	(26,30)
Maine	yes	yes	yes	yes	yes	yes[18]	yes	...	...	yes	...	yes	yes	...	...	(15)
Maryland	yes	...	yes[21]	...	yes	yes[22]	...	yes[14]	...	...	yes[14]	...	...	...	...	(33)
Massachusetts	yes	yes	yes[15]	yes	...	yes[24]	yes	...	...	...	...	...	yes	...	...	(24)
Michigan	yes	yes	yes[3]	yes	yes	yes[25]	yes	...	...	...	...	...	...	...	...	.....
Minnesota	yes	yes	yes[2]	yes	yes	yes	...	yes[4]	...	...	yes[3]	...	...	...	...	.....
Mississippi	yes	yes	yes	yes	yes	yes	yes	yes[15]	yes	yes	yes[2]	...	yes	...	...	(7,12,16)
Missouri	yes	yes	yes	yes	yes	yes	...	...	yes	yes	...	yes	...	...	...	(7-10)
Montana	yes	yes	yes	...	...	yes	yes	yes	...	...	...	...	...	...	...	(17)
Nebraska	yes	yes	yes	yes	yes	yes[25]	yes	yes[4]	...	...	...	...	...	...	...	.....
Nevada	yes	yes	yes[2]	yes	yes	yes	yes	yes[3]	...	...	...	...	...	...	...	(10,36)
New Hampshire	yes	yes	yes[14]	yes[14]	yes	yes[6]	yes[14]	...	...	...	...	...	...	yes	...	(15,28)
New Jersey	yes	yes	yes[3]	...	...	...	...	...	...	...	...	...	...	...	...	.....
New Mexico	yes	yes	yes	yes	yes	...	yes	...	yes	...	...	...	...	...	...	.....
New York	yes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....
North Carolina	yes	...	...	...	yes	...	...	yes[37]	yes	...	yes[3]	...	...	...	...	(5)
North Dakota	yes	yes	yes[3]	yes[2]	...	yes	yes[3]	yes[4]	...	...	...	...	yes[3]	...	...	.....
Ohio	yes	yes	...	yes[14]	yes	yes	...	...	...	yes	...	...	...	...	yes	(15,24,39)
Oklahoma	yes	yes	yes[2]	yes	yes	yes	...	yes[4]	yes	yes	...	...	...	...	yes	(39)
Oregon	yes	yes	yes[38]	yes[2]	yes	yes	...	yes[4]	...	...	...	yes	...	...	...	.....
Pennsylvania	yes	yes	yes[3]	...	yes[45]	yes[20]	...	...	...	yes	...	yes	...	...	yes	(12)
Rhode Island	yes	yes	yes[4]	yes	yes	...	yes	...	...	...	...	...	yes	...	...	(40)
South Carolina	yes	yes	yes[2]	yes	...	...	...	...	...	...	...	...	...	...	...	.....
South Dakota	yes	yes[2]	yes[2]	...	...	yes	yes[2]	yes[3]	...	...	...	...	...	...	...	(7)
Tennessee	yes	...	yes[3]	yes	yes	yes	...	...	yes	yes	...	...	...	...	...	(26,41)
Texas	yes	yes	yes[14]	...	...	yes[6]	...	yes[4]	...	...	yes[37]	...	...	...	...	.....
Utah	yes	yes	yes	yes	yes	yes	yes	yes	...	...	yes[14]	...	...	...	...	.....
Vermont	yes	yes	yes[14]	...	...	yes[25]	yes	yes[4]	...	...	yes[14]	...	...	...	...	(19)
Virginia	yes	...	yes[3]	...	yes	yes	...	...	yes	...	...	...	...	...	...	(13,42,43)
Washington	yes	yes	yes[2]	yes	yes	yes	yes	yes[3]	...	...	yes[4]	yes	...	...	yes	.....
West Virginia	yes	yes	yes[3]	yes	...	yes	...	...	...	...	...	...	yes	...	...	.....
Wisconsin	yes	yes	yes[2]	yes	yes	yes[25]	...	...	...	...	yes[4]	...	...	...	...	(44)
Wyoming	yes	yes	yes[2]	yes	yes	yes	yes[2]	yes[3]	yes	...	yes[3]	yes	...	...	...	(8,9)

[1] If unknown to husband. [2] 1 year. [3] 2 years. [4] 5 years. [5] Crime against nature. [6] With imprisonment of 1 year. [7] Absence of 1 year. [8] Felony before marriage. [9] Husband a vagrant. [10] Infamous crime. [11] Loathsome disease. [12] Relationship within prohibited degree. [13] Wife a prostitute. [14] 3 years. [15] Absence of 3 years. [16] Insanity at time of marriage. [17] Habitual intemperance. [18] With imprisonment for life. [19] Absence of 7 years. [20] With imprisonment of 2 years. [21] Wife under 16 at time of marriage. [22] Husband under 18 at time of marriage. [23] Feebleminedness or epilepsy for 5 years. [24] Defendant obtained divorce from plaintiff in any other state or country. [25] Absence. [26] Attempt by one party on life of other. [27] Infected other party with communicable venereal disease. [28] Joining a religious cult disbelieving in marriage. [29] Unchaste behavior of wife after marriage. [30] Public defamation. [31] 18 months. [32] With imprisonment of 3 years, 18 months of which have been served. [33] Any cause which, by laws of state, renders marriage null and void at its inception. [34] With imprisonment of 5 years. [35] With imprisonment of 3 years. [36] Noncohabitation for 3 years. [37] 10 years. [38] 1 year, if contracted after marriage. [39] Gross neglect of duty. [40] Any other gross misbehaviour or wickedness. [41] Absence of 2 years. [42] Infamous crime before marriage. [43] Fugitive from justice and absent for 2 years. [44] Absence of 5 years. [45] If at time of marriage and incurable.

Divorce Information, by State

Sources: Questionnaires to states; and Federal Security Agency, Public Health Service.

State	Residence for divorce	Period before parties may remarry		Number of divorces, 1950[2]	Rates[1]	
		Plaintiff	Defendant		1949[3]	1950[2]
Alabama	1 yr.	none	(4)	8,720	2.9	2.8
Arizona	1 yr.	1 yr.	1 yr.	4,478[5]	6.2	...
Arkansas	90 da.	none	none	8,600[7]	5.3	4.4[7]
California	1 yr.	1 yr.	1 yr.	38,559	3.7	3.6
Colorado	1 yr.	6 mo.	6 mo.	.....	...	...
Connecticut	3 yr.	none	none	2,714	1.4	1.4
Delaware	2 yr.	none	none	634	2.6	2.0
D. C.	1 yr.[6]	6 mo.	6 mo.	1,697	1.9	2.2
Florida	90 da.	none	none	18,033	6.6	6.4
Georgia	1 yr.	none	none	.....	...	...
Idaho	6 wk.	6 mo.	6 mo.	2,698	4.8	4.5
Illinois	1 yr.	none	none	23,002	2.8	2.6
Indiana	1 yr.	none	none	.....	...	...
Iowa	1 yr.	1 yr.[18]	1 yr.[18]	5,402	2.1	2.0
Kansas	1 yr.	6 mo.	6 mo.	4,500[5]	2.4	...
Kentucky	1 yr.	none	none	.....	...	...
Louisiana	1 yr.	none[8]	none[8]	5,400[7]	...	2.0[7]
Maine	1 yr.	none	none	2,107[5]	2.3	...
Maryland	1 yr.	none	none	5,039	2.1	2.2
Massachusetts	5 yr.	6 mo.	2 yr.	6,855[5]	1.4	...
Michigan	1 yr.	none	(9)	16,274[5]	2.6	...
Minnesota	1 yr.	6 mo.	6 mo.	4,085	1.4	1.4
Mississippi	2 yr.	(10)	(10)	5,949	3.0	2.7
Missouri	1 yr.	none	none	13,758	3.6[7]	3.5
Montana	1 yr.	none	none	1,951	3.5	3.2
Nebraska	1 yr.	6 mo.	6 mo.	2,587[5]	2.0	...
Nevada	6 wk.	none	none	8,909	67.9[7]	55.7
New Hampshire	1 yr.	none	none	1,039	2.0	1.9
New Jersey	2 yr.	none	none	5,434	1.2	1.1
New Mexico	1 yr.	none	none	2,884[5]	4.6	...
New York	(11)	none	3 yr.[12]	11,700[7]	...	0.8[7]
North Carolina	2 yr.	none	none	.....	...	...
North Dakota	1 yr.	(4)	(4)	582	1.1	0.9
Ohio	1 yr.	none	none	21,081	2.9[7]	2.7
Oklahoma	1 yr.	6 mo.	6 mo.	14,000[7]	...	6.2[7]
Oregon	1 yr.	6 mo.	6 mo.	5,941	4.2	3.9
Pennsylvania	1 yr.	none	none	11,860	1.3	1.1
Rhode Island	2 yr.	none	none	1,011[5]	1.3	...
South Carolina[13]	1 yr.	none	none	2,300[7]	...	1.1[7]
South Dakota	1 yr.	none	none[14]	905	1.5	1.4
Tennessee	2 yr.	none	none	7,294	2.3	2.2
Texas	1 yr.	1 yr.[19]	1 yr.[19]	38,027[5]	5.0	...
Utah	3 mo.	6 mo.	6 mo.	2,107	3.2	3.0
Vermont	1 yr.	none	2 yr.[15]	650	1.5	1.7
Virginia	1 yr.	4 mo.	4 mo.	5,785	1.9	1.7
Washington	1 yr.	none	none	.....	...	...
West Virginia	1 yr.[16]	6 da.	(17)	.....	...	...
Wisconsin	2 yr.	1 yr.	1 yr.	4,758	1.4	1.4
Wyoming	60 da.	none	none	1,120	4.4	3.8

[1] Per 1,000 estimated total midyear population present in area. [2] Provisional figures. Include reported annulments. Leaders (. . .) indicate data unavailable. [3] Revised figures. Include reported annulments. [4] At discretion of court. [5] 1949. [6] 2 yr. if cause for divorce occurred outside D. C. [7] Estimated. [8] For husband; 10 mo. for wife. In case of adultery, guilty party cannot marry accomplice. [9] Time set in decree; not to exceed 2 yr. [10] Until court is adjourned that grants the divorce. [11] Action for divorce may be maintained where: (1) both parties were residents of state when offense was committed; (2) parties were married within state; (3) plaintiff was resident of state when offense was committed and is resident when action is commenced; (4) offense was committed within state and injured party is resident of state when action is commenced. [12] By modification of decree by court. [13] No divorce granted; law permitting divorce passed in 1949. Figures on annulments for 1948–49 not available. [14] In case of adultery, guilty party may not marry, except to innocent party, until death of innocent party. [15] Period may be shortened by court. [16] 2 years if residence is acquired after cause of divorce action arose. No residence required in case of adultery if personal service can be had within state. [17] 60 days to 1 year. [18] Unless otherwise set out by judge. [19] For cruelty only, but technically not usually observed.

Marriages and Divorces in the United States, 1890–1950

Source: Federal Security Agency, Public Health Service.

Year	Marriages	Rate[1]	Divorces[2]	Rate[1]	Year	Marriages	Rate[1]	Divorces[2]	Rate[1]
1890	570,000	9.0	33,461	.5	1925	1,188,334	10.3	175,449	1.5
1895	620,000	8.9	40,387	.6	1926	1,202,574	10.2	184,678	1.6
1900	709,000	9.3	55,751	.7	1927	1,201,053	10.1	196,292	1.6
1901	742,000	9.6	60,984	.8	1928	1,182,497	9.8	200,176	1.7
1902	776,000	9.8	61,480	.8	1929	1,232,559	10.1	205,876	1.7
1903	818,000	10.1	64,925	.8	1930	1,126,856	9.2	195,961	1.6
1904	815,000	9.9	66,199	.8	1931	1,060,914	8.6	188,003	1.5
1905	842,000	10.0	67,976	.8	1932	981,903	7.9	164,241	1.3
1906	895,000	10.5	72,062	.8	1933	1,098,000	8.7	165,000	1.3
1907	936,936	10.8	76,571	.9	1934	1,302,000	10.3	204,000	1.6
1908	857,461	9.7	76,852	.9	1935	1,327,000	10.4	218,000	1.7
1909	897,354	9.9	79,671	.9	1936	1,369,000	10.7	236,000	1.8
1910	948,166	10.3	83,045	.9	1937	1,451,296	11.3	249,000	1.9
1911	955,287	10.2	89,219	1.0	1938	1,330,780	10.3	244,000	1.9
1912	1,004,602	10.5	94,318	1.0	1939	1,403,633	10.7	251,000	1.9
1913	1,021,398	10.5	91,307	.9	1940	1,595,879	12.1	264,000	2.0
1914	1,025,092	10.3	100,584	1.0	1941	1,695,999	12.7	293,000	2.2
1915	1,007,595	10.0	104,298	1.0	1942	1,772,132	13.2	321,000	2.4
1916	1,075,775	10.6	114,000	1.1	1943	1,577,050	11.8	359,000	2.6
1917	1,144,200	11.1	121,564	1.2	1944	1,452,394	11.0	400,000	2.9
1918	1,000,109	9.7	116,254	1.1	1945	1,612,992	12.2	485,000	3.5
1919	1,150,186	11.0	141,527	1.3	1946	2,291,045	16.4	610,000	4.3
1920	1,274,476	12.0	170,505	1.6	1947	1,991,878	13.9	483,000	3.4
1921	1,163,863	10.7	159,580	1.5	1948	1,811,155	12.4	408,000	2.8
1922	1,134,151	10.3	148,815	1.4	1949	1,579,798	10.6	397,000	2.7
1923	1,229,784	11.0	165,096	1.5	1950[3]	1,669,934	11.0	385,000	2.5
1924	1,184,574	10.4	170,952	1.5					

[1] Per 1,000 population. For 1917–19 and 1940–46, marriage rates based on population excluding armed forces overseas, and divorce rates based on population including armed forces overseas. For 1947–50, all rates based on population excluding armed forces overseas. [2] Includes annulments. [3] Provisional figures. NOTE: Figures for marriages for all years include partial or complete estimates for some states; figures for divorces are estimated, except for 1900, 1905 and 1925–32.

Marriage Prospects of Single Men and Women

Source: U. S. Bureau of the Census.

Age	Per cent of population single[1] Male	Female	Per cent who ever marry[2] Male	Female	Age	Per cent of population single[1] Male	Female	Per cent who ever marry[2] Male	Female
15	99.8	98.8	92.2	93.5	31	21.0	14.7	67.5	50.8
16	99.7	96.1	92.4	93.5	32	20.9	14.7	63.0	46.4
17	99.3	91.0	92.5	93.5	33	18.6	13.0	58.5	42.1
18	97.9	82.3	92.6	93.3	34	17.2	12.6	54.1	38.0
19	94.6	73.0	92.7	92.9	35			49.7	34.3
20	89.1	62.8	92.6	92.1	36			45.6	31.0
21	81.0	54.4	92.3	90.8	37	15.3	11.2	41.6	27.9
22	72.8	46.2	91.8	89.0	38			38.1	25.2
23	62.9	38.7	90.9	86.3	39			34.8	22.6
24	54.3	32.9	89.6	82.8	40	12.6[3]	9.5[3]	31.7	20.2
25	46.9	28.6	88.0	78.5	45	11.2[3]	8.6[3]	19.1	11.3
26	40.8	25.1	85.9	73.7	50	11.0[3]	8.7[3]	11.1	6.1
27	35.0	22.0	83.4	68.9	55	10.8[3]	8.7[3]	6.2	3.2
28	30.6	20.1	80.3	64.4	60	10.5[3]	9.3[3]	3.3	1.6
29	26.2	17.7	76.6	59.9	65 and over	9.8	9.3	1.9	.8
30	25.2	17.9	72.3	55.3					

[1] Per cent single within the specified year of age in 1940, except as specified in footnote 3. [2] Per cent of persons single at beginning of year of age who marry during that year and all later years. This figure indicates the total chance of first marriage for single persons who have attained the specified age. [3] Per cent single in age group 40–44, 45–49, etc.; data for single years not available. NOTE: "Single" means those never married; that is, it excludes widowed and divorced. Hence, "marriage prospects" refers to likelihood of first marriage only.

Hospital Facilities in the U. S., 1950

Source: American Medical Association.

State	General	Nervous & mental	Tuberculosis	Maternity	Industrial	Eye, ear, nose, throat	Children's	Other	Hospitals	Totals Beds	Patients
Alabama	84	7	7	1	—	—	1	7	107	19,277	246,610
Arizona	53	2	10	—	—	—	—	2	67	6,831	106,235
Arkansas	58	2	2	—	2	—	1	1	66	14,110	156,290
California	262	41	29	11	2	2	4	26	377	105,932	1,218,537
Colorado	70	9	9	2	1	—	1	5	97	17,907	214,193
Connecticut	37	15	6	—	—	—	—	14	72	22,738	249,113
Delaware	9	3	2	—	—	—	—	2	16	4,479	37,523
D. C.	15	1	1	2	—	1	1	4	25	15,552	159,037
Florida	104	5	4	3	—	1	2	10	129	20,649	285,952
Georgia	97	6	3	1	1	1	1	8	118	23,551	333,523
Idaho	40	3	1	1	—	—	—	2	47	4,282	66,011
Illinois	222	31	29	6	2	3	3	38	334	99,388	1,071,400
Indiana	96	13	10	—	1	1	1	9	131	26,983	337,041
Iowa	105	12	5	2	—	—	—	5	129	21,877	295,883
Kansas	99	8	3	2	2	—	—	6	120	18,381	245,543
Kentucky	84	10	4	1	1	1	1	6	108	21,249	254,554
Louisiana	94	6	5	1	1	1	—	4	112	22,109	331,337
Maine	45	4	4	1	—	—	—	—	54	8,506	91,915
Maryland	47	14	6	—	—	2	1	11	81	25,239	238,911
Massachusetts	138	32	22	5	—	2	3	17	219	64,794	568,791
Michigan	175	22	23	3	2	1	1	23	250	63,111	729,521
Minnesota	160	14	15	2	—	1	1	16	209	30,592	432,683
Mississippi	79	6	1	—	—	—	—	3	89	13,073	187,644
Missouri	103	15	7	7	3	1	2	15	153	36,871	416,100
Montana	49	1	1	—	1	—	—	1	53	5,851	97,858
Nebraska	98	5	1	1	—	—	1	5	111	13,175	173,520
Nevada	14	1	—	—	—	—	—	—	15	1,277	23,518
New Hampshire	32	2	2	—	—	—	—	1	37	6,043	70,494
New Jersey	83	22	15	3	—	1	1	31	156	51,085	465,152
New Mexico	32	4	5	—	1	—	—	1	43	4,108	59,073
New York	312	57	48	11	2	7	4	68	509	205,903	1,747,003
North Carolina	130	11	18	1	1	2	1	8	172	27,553	426,711
North Dakota	45	2	1	1	—	—	—	1	50	6,880	96,417
Ohio	149	28	23	9	1	—	3	25	238	67,905	844,223
Oklahoma	98	7	4	1	—	—	—	6	116	17,480	221,027
Oregon	57	6	4	1	—	—	—	4	72	11,494	177,540
Pennsylvania	229	40	14	5	—	4	5	41	338	105,595	1,133,256
Rhode Island	14	4	4	1	—	—	—	1	24	9,408	79,732
South Carolina	53	3	6	—	—	1	—	2	65	15,373	202,388
South Dakota	50	3	2	—	—	—	—	1	56	7,131	94,374
Tennessee	95	12	9	—	—	6	1	8	131	23,518	311,517
Texas	431	15	18	3	3	9	2	22	503	52,952	925,412
Utah	26	2	1	1	—	—	1	1	32	4,396	73,748
Vermont	23	3	2	—	—	—	—	1	29	4,097	53,631
Virginia	90	12	7	—	—	3	—	6	118	29,647	351,834
Washington	98	8	12	2	—	—	—	7	127	25,506	342,611
West Virginia	65	6	5	—	—	—	—	5	81	13,842	219,554
Wisconsin	136	41	20	1	—	—	1	13	212	35,435	461,329
Wyoming	28	3	1	—	—	—	—	—	32	3,677	47,021
Total, 1950	4,713[1]	579[2]	431[3]	92[4]	27[5]	51[6]	44[7]	493[8]	6,430[9]	1,456,912	17,023,513
Total, 1949	4,761	606	444	102	33	52	42	532	6,572	1,439,030	16,659,973
Total, 1948	4,589	586	438	100	33	46	39	504	6,335	1,423,520	16,422,774
Total, 1947	4,539	585	441	100	33	44	41	493	6,276	1,425,222	15,829,514
Total, 1945	4,744	563	449	106	36	42	44	527	6,511	1,738,944	16,257,402
Total, 1940	4,432	602	479	116	33	41	46	542	6,291	1,226,245	10,087,548
Total, 1931	4,309	537	509	145	142	64	60	797	6,613	974,115	7,155,976

[1] Beds—patients admitted: 587,917—15,820,170; [2] 711,921—307,165; [3] 85,716—113,275; [4] 4,999—102,147; [5] 2,661—58,180; [6] 2,560—113,951; [7] 5,087—129,784. [8] Includes (hospitals—beds—patients admitted): orthopedic, 86—6,963—35,223; isolation, 44—8,554—135,877; convalescent and rest, 113—6,115—33,860; hospital departments of institutions, 178—18,547—123,854; all other, 72—15,812—10,027. [9] Classification by control: federal, 355; state, 552; county, 572; city, 363; city-county, 70; church related (nonprofit), 1,097; nonprofit associations, 2,072; individual and partnership, 958; corporations (profit unrestricted), 391.

Sentenced Federal Prisoners Received from Courts, 1935–1950

Fiscal years ending June 30

Source: Federal Bureau of Prisons.

Offense	1935	1944	1945	1946	1947	1948	1949	1950
National-security offenses:								
Selective Service Act	....	3,930	2,613	1,446	833	236	226*	136†
Other national-defense and -security laws	....	1,710	2,150	1,143	578	319	182	130
Military court-martial cases: Army	25	954	1,793	2,176	2,014	851	592	606
Military court-martial cases: Navy	....	8	22	40	50	267	88	107
Total	25	6,602	6,588	4,805	3,475	1,673	1,088	979
Other Federal offenses:								
Counterfeiting and forgery	1,848	536	673	891	1,083	1,018	1,204	1,534
Embezzlement and fraud	483	452	340	350	396	531	582	609
Immigration laws	2,509	2,674	3,996	3,629	3,989	3,200	3,526	3,463
Juvenile Delinquency Act‡	....	834	911	1,221	870	677	607	658
Kidnaping	38	31	20	21	32	36	23	41
Liquor laws	12,036	2,635	2,988	2,425	1,996	1,838	2,035	2,304
National Bank and Federal Reserve Act	129	67	51	69	50	141	90	165
Narcotic-drug laws	2,115	1,306	1,134	1,261	1,447	1,443	1,503	2,029
National Motor Vehicle Theft Act	1,252	1,079	1,072	1,997	2,740	2,612	2,471	2,486
Theft from interstate commerce	333	362	475	448	524	430	378	270
White Slave Traffic Act	150	255	209	157	183	221	160	185
Govt. reservation, D. C., high seas terr. cases	700	991	986	873	974	1,069	1,054	1,145
Other	1,871	1,392	1,757	1,965	1,867	1,898	2,012	2,195
Total	23,464	12,614	14,612	15,307	16,151	15,114	15,645	17,084
Total all offenses	23,489	19,216	21,200	20,112	19,626	16,787	16,733	18,063

* Act of 1940: 152; Act of 1948: 74. † Act of 1940: 97; Act of 1948: 39. ‡ Offenses committed by persons 17 years of age or under upon which action was taken under the Federal Juvenile Delinquency Act of 1938.

Methods of Execution in the United States

State	Method	State	Method
Alabama	Electrocution	New Jersey	Electrocution
Arizona	Lethal gas	New Mexico	Electrocution
Arkansas	Electrocution	New York	Electrocution
California	Lethal gas	North Carolina	Lethal gas
Colorado	Lethal gas	North Dakota	No death penalty
Connecticut	Electrocution	Ohio	Electrocution
Delaware	Hanging	Oklahoma	Electrocution
D. C.	Electrocution	Oregon	Lethal gas
Florida	Electrocution	Pennsylvania	Electrocution
Georgia	Electrocution	Rhode Island	No death penalty
Idaho	Hanging	South Carolina	Electrocution
Illinois	Electrocution	South Dakota	Electrocution
Indiana	Electrocution	Tennessee	Electrocution
Iowa	Hanging	Texas	Electrocution
Kansas	Hanging	Utah	Hanging or shooting
Kentucky	Electrocution	Vermont	Electrocution
Louisiana	Electrocution	Virginia	Electrocution
Maine	No death penalty	Washington	Hanging
Maryland	Hanging	West Virginia	Electrocution
Massachusetts	Electrocution	Wisconsin	No death penalty
Michigan	No death penalty	Wyoming	Lethal gas
Minnesota	No death penalty	U. S. (Fed. Gov't.)	(1)
Mississippi	Electrocution	Alaska	Hanging
Missouri	Lethal gas	Canal Zone	Hanging
Montana	Hanging	Hawaii	Hanging
Nebraska	Electrocution	Puerto Rico	No death penalty
Nevada	Lethal gas	Virgin Islands	Hanging
New Hampshire	Hanging		

[1] Method shall be that used by state in which sentence is imposed. If state does not have death penalty, Federal judge shall prescribe method for carrying out death sentence. NOTE: Method shown with each state is maximum penalty for murder and certain other crimes. In most states having capital punishment, jury or judge can specify whether sentence shall be death or life imprisonment.

Distribution of Arrests by Sex, 1950

Source: Federal Bureau of Investigation.

Offense charged	Males	Per cent	Females	Per cent	Total	Per cent
Criminal homicide	5,482	.8	854	1.1	6,336	.8
Robbery	18,930	2.6	849	1.1	19,779	2.5
Assault	53,168	7.4	6,328	8.3	59,496	7.5
Burglary—breaking or entering	42,564	5.9	1,109	1.4	43,673	5.5
Larceny—theft	58,409	8.2	7,622	10.0	66,031	8.3
Auto theft	17,905	2.5	493	.6	18,398	2.3
Embezzlement and fraud	19,505	2.7	1,934	2.5	21,439	2.7
Stolen property; buying, receiving, etc.	3,014	.4	275	.4	3,289	.4
Arson	932	.1	122	.2	1,054	.1
Forgery and counterfeiting	10,395	1.4	1,348	1.8	11,743	1.5
Rape	9,323	1.3	.....	...	9,323	1.2
Prostitution and commercialized vice	3,338	.5	5,241	6.8	8,579	1.1
Other sex offenses	16,851	2.3	2,874	3.8	19,725	2.5
Narcotic-drug laws	7,495	1.0	1,044	1.4	8,539	1.1
Weapons; carrying, possessing, etc.	9,887	1.4	489	.6	10,376	1.3
Offenses against family and children	14,419	2.0	819	1.1	15,238	1.9
Liquor laws	9,466	1.3	1,794	2.3	11,260	1.4
Driving while intoxicated	49,190	6.9	2,128	2.8	51,318	6.5
Road and driving laws	14,255	2.0	316	.4	14,571	1.8
Parking violations	293	*	16	*	309	*
Other traffic and motor-vehicle laws	12,649	1.8	403	.5	13,052	1.6
Disorderly conduct	39,078	5.4	6,360	8.3	45,438	5.7
Drunkenness	162,202	22.8	15,963	20.9	178,165	22.6
Vagrancy	41,598	5.8	7,006	9.1	48,604	6.1
Gambling	13,965	1.9	1,525	2.0	15,490	2.0
Suspicion	41,291	5.8	4,903	6.4	46,194	5.8
Not stated	7,083	1.0	847	1.1	7,930	1.0
All other offenses	34,401	4.8	3,921	5.1	38,322	4.8
Total arrests, 1950	717,088	100.0	76,583	100.0	793,671	100.0

* Less than 1/10 of 1 per cent.

Arrests by Age Groups, 1950

Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests	Age	Arrests
Under 15	3,533	18	26,893	22	32,160	30–34	106,051	50 and over	82,913
15	4,111	19	28,229	23	30,436	35–39	94,385	Not known	404
16	9,814	20	28,705	24	29,034	40–44	76,728		
17	17,141	21	32,313	25–29	132,620	45–49	58,201		

Total Arrests for Previous Years

Year	Arrests	Year	Arrests	Year	Arrests	Year	Arrests
1942	585,988	1944	488,979	1946	645,431	1948	759,698
1943	490,764	1945	543,852	1947	734,041	1949	792,029

Estimated Number of Major Crimes in the U. S., 1945–50

Source: Federal Bureau of Investigation.

Crime	1945	1946	1947	1948	1949	1950
Murder and nonnegligent manslaughter	6,847	8,442	7,760	7,620	6,990	7,020
Manslaughter by negligence	4,387	4,701	5,770	5,390	4,880	5,330
Rape	11,537	12,117	17,180	16,180	16,380	16,580
Robbery	54,279	62,782	58,100	54,990	59,120	53,230
Aggravated assault	59,807	67,512	74,690	77,310	78,860	80,950
Burglary—breaking or entering	321,672	357,991	373,450	377,640	409,400	411,980
Larceny—theft	865,521	941,738	943,430	978,000	1,024,520	1,044,160
Auto theft	241,491	229,920	184,730	169,540	163,140	170,780
Total major crimes	1,565,541	1,685,203	1,665,110	1,686,670	1,763,290	1,790,030

Motor Vehicle Laws as of January 1, 1951

Source: American Automobile Association.

State	Speed limit[1]	Date new license plates can be used	Driving license Required	Driving license Minimum age	Gasoline tax	Per cent sales tax	Period of stay[2]	Safety responsibility law	Certificate of title required
Alabama	A	Oct. 1	yes	16	$.06	½[3]	Reciprocal	yes	no
Arizona	60B	On issue	yes	18	.05	2	([4])	yes	yes
Arkansas	55	Jan. 1	yes	18	.065	2	90 days[5]	yes	yes
California	55 pf	Jan. 1	yes	16	.045	3	Reciprocal	yes	yes
Colorado	60	On issue	yes	16	.06	2	Reciprocal	yes	yes
Connecticut	45 J	Feb. 15	yes	16	.04	2[6]	Reciprocal	yes	no
Delaware	50 C	([7])	yes	16	.05	...	Reciprocal	yes	yes
D. C.	25	Mar. 1	yes	16	.04	2	Reciprocal	yes	yes
Florida	60 pf D	Jan. 5	yes	16	.07	...	Reciprocal	yes	yes
Georgia	55	Jan. 1	yes	16	.06	3	30 days	yes	no
Idaho	A	Jan. 1	yes	16	.06	...	Reciprocal	yes	yes
Illinois	A	Dec. 1	yes	15	.04	2	Reciprocal	yes	yes
Indiana	A	Jan. 2	yes	16	.04	...	60 days	yes	yes
Iowa	A	Dec. 1	yes	16	.04	2	Reciprocal[4]	yes	no
Kansas	A	Jan. 1	yes	16	.05	2	Reciprocal	yes	yes
Kentucky	60 pf D	Dec. 29	yes	16	.07	3[6]	Reciprocal	yes	([8])
Louisiana	60	Dec. 15	yes	15	.09	2	Reciprocal	no	yes
Maine	45	Dec. 25	yes	15	.06	2	Reciprocal	yes	no
Maryland	50 E	Mar. 15	yes	16	.05	2	90 days	yes	yes
Massachusetts	40 pf A	Jan. 1	yes	16	.043	([9])	Reciprocal[10]	([11])	no
Michigan	A	On issue	yes	16	.045	3	90 days	yes	yes
Minnesota	60 pf D	Nov. 1	yes	15	.05	...	Reciprocal[12]	yes	no
Mississippi	60	Oct. 1	yes	17	.07	2	([13])	no	no
Missouri	A	On issue	yes	16	.02	2	Reciprocal	yes	yes
Montana	50	Jan. 1	yes	15	.06	...	30 days[12,14]	yes	yes
Nebraska	60 F	Jan. 1	yes	15½	.05	...	([13, 15])	yes	yes
Nevada	A	Dec. 15	yes	16	.055	...	No limit	yes	yes
New Hampshire	50	Mar. 1	yes	16	.05	...	Reciprocal	yes	no
New Jersey	40 G	Mar. 1	yes	17	.03	...	Reciprocal	yes	yes
New Mexico	60 F	Dec. 1	yes	14	.06	1	90 days	yes	yes
New York	50	Jan. 1	yes	18	.04	...	Reciprocal	yes	no
North Carolina	55	Dec. 1	yes	16	.07	3[16]	Reciprocal	yes	yes
North Dakota	60	On issue	yes	16	.05	2	Reciprocal	yes	yes
Ohio	50 pf	Mar. 1	yes	16	.04	3	Reciprocal	yes	yes
Oklahoma	65 I	Dec. 11	yes	16	.065	2	60 days[17]	yes	yes
Oregon	55	On issue	yes	16	.06	...	Reciprocal	yes	yes
Pennsylvania	50	Mar. 15	yes	18	.05	...	Reciprocal	yes	yes
Rhode Island	45 H	Mar. 1	yes	16	.04	2	Reciprocal	yes	no
South Carolina	55	Sept. 18	yes	14	.07	...	90 days	no	no
South Dakota	60 F	Jan. 1	no	15	.05	3[16]	90 days	yes	yes
Tennessee	A	Mar. 1	yes	16	.07	2	30 days	yes	yes
Texas	60 I	Feb. 1	yes	16	.04	1.1	Reciprocal	yes	yes
Utah	60 F	Dec. 15	yes	16	.05	2	Reciprocal	yes	yes
Vermont	50	Mar. 1	yes	18	.05	...	Reciprocal	yes	no
Virginia	50 E	Mar. 15	yes	15	.06	...	6 months	yes	yes
Washington	50	Nov. 15	yes	16	.065	3	Reciprocal	yes	yes
West Virginia	55	June 20	yes	16	.05	...	90 days	yes	yes
Wisconsin	65 I	On issue	yes	16	.04	...	Reciprocal	yes	yes
Wyoming	60 pf	Dec. 1	yes	15	.05	2	90 days	yes	yes

[1] A—reasonable and proper; B—lower speed at night and on old highways; C—55 mph on 4-lane highways; D—50 mph pf at night; E—55 mph on dual-lane highways; F—50 mph at night; G—certain highways zoned for 45 mph; H—highways zoned for speed up to 50 mph as posted; I—55 mph at night; J—parkways to 55 mph where marked; pf—prima facie limit. [2] Applies to nonresidents. The term "reciprocal" means that the state will extend to a nonresident the identical privileges granted by his home state to nonresident motorists. In some states, visitors must register within a specified time. In most states, persons who intend to reside permanently must buy new plates and secure new driving license at once, or within a limited time. Acquisition of employment or placing children in public school is often considered intention to reside permanently. [3] None on used cars. [4] Visitor's permit required after 10 days. [5] Visitors must register after 30 days. [6] Use tax on new cars, first registration of used cars. [7] Three months before current registration expires. [8] Bill of sale must be filed. [9] Excise tax. [10] Public liability insurance required after 30 days. [11] State has compulsory insurance. [12] Visitors must register immediately. [13] Until home-state license plates expire. [14] Extension granted. [15] Nebraska operator's license required in 30 days. [16] $15 maximum. [17] Visitors must register within 15 days. [18] Registry tax on first registration in state.

EDUCATION

Elementary and Secondary Public School Statistics, 1949–50

Source: Information Please Almanac Questionnaire.

Note: The number of schools includes rural and one-room school houses. The number of pupils includes only full-time students. The average yearly expenditure is based on the average daily attendance.

State	Elementary			Secondary			Average yearly expenditure per pupil	Average yearly salary of teachers
	No. schools	No. pupils	No. teachers	No. schools	No. pupils	No. teachers		
Alabama	(1)	454,171	13,132	(1)	8,479	230.737	$ 89.16	$2,062.00
Arizona[2]	449	100,863	3,852	79	25,647	1,294	209.51[3]	(4)
Arkansas	2,045	241,259	8,041	658	113.778	5,699	118.00	1,801.00
California	4,400	1,178,706[2]	37,395[2]	574[2]	488,809[2]	20,747[2]	239.07	3,667.00[2]
Colorado	1,471	158,984	5,588	355	50,514	3,483	190.57	2,703.91[5]
Connecticut	678	206,214	6,157	124	77,349	3,651	213.94	3,413.00
Delaware	150[2]	29,960[2]	1,030[2]	80[2]	17,580[2]	906[2]	251.59	3,654.00[2]
Florida[2]	1,401	311,879	9,751	333	179,326	6,708	172.81	2,385.00
Georgia	2,540	603,776	16,476	2,135	166,185	6,904	111.47	1,997.04
Idaho[3]	681	91,116	2,602	156	30,676	1,376	217.12	2,526.39
Illinois	4,520	877,141	32,287	662	301,561	14,937	232.02	2,756.01
Indiana[5]	1,706	381,225	13,337	796	266,661	10,751	186.12	3,065.95[6]
Iowa	7,062	344,303	15,320	909	133,417	6,894	228.18	2,575.42
Kansas	3,778	242,205	9,938	617	86,758	4,741	202.35	2,593.33
Kentucky[3]	4,550	360,242	13,325[5]	113	114,209	5,877[5]	125.00	2,051.15[5]
Louisiana	2,009[2]	392,407	12,021[2]	521[2]	90,795	4,009[2]	203.83	2,993.81[6]
Maine	1,468	124,058	4,596	211	34,189	1,820	169.15	2,152.97
Maryland	858	229,637	6,536	225	113,608	4,985[5]	197.63	3,461.00[5]
Massachusetts	1,731	387,503	14,528	335[7]	200,864	10,316	209.50	3,377.00[6]
Michigan	4,674	678,125	22,767	750	363,412	14,330	274.28	3,300.24
Minnesota	7,687	324,743	12,174	641	171.602	8,533	245.00	2,799.00
Mississippi	4,098	464,659	11,168	745	83,002	5,057	74.57	1,462.32
Missouri	4,860	479,420	16,084	652	145,331	6,017	169.96	2,359.00
Montana[2]	1,221	78,620	3,658	179	25,601	1,466	230.00	2,831.00
Nebraska	6,210	168,058	8,775	559	59,821	3,173	189.77	2,247.70
Nevada	166	18,010	785	39	5,580	314	763.64	3,172.50
New Hampshire	434[2]	49,496	1,669[2]	117[2]	23,818	1,442[2]	245.86	2,683.00[2]
New Jersey	2,357	413,806	16,873	275	251,650	9,611	253.72	3,416.76
New Mexico[3]	730	118,508	(10)	151	25,327	(10)	155.00	3,000.00
New York	5,927	1,413,832	51,140	993	534,899	28,530	279.52[8]	3,829.00
North Carolina	2,852	711,804	20,663	958	181,941	6,828	126.00	2,525.00
North Dakota	2,871	87,636	4,916	401	26,852	1,621	136.36	2,162.31
Ohio	3,074	765,759	24,268	1,210	399,054	18,416	232.64	3,081.00[2]
Oklahoma[2]	2,792	371,920	11,595	962	116,919	6,710	149.50	2,764.00
Oregon	1,083	212,289	7,503	224	69,020	3,183	264.69	3,305.00
Pennsylvania	6,246	940,538	29,197	1,146	559,600	23,885	195.42	2,753.00
Rhode Island[3]	305	60,678	2,063	62	33,872	1,737	202.76	3,094 97[5]
South Carolina	3,238	377,356	11,972	467	116,829	4,781	118.56	1,872.00
South Dakota	3,560	88,577	5,326	276	29,098	1,801	220.81	2,185.30
Tennessee[2]	4,241	539,445	(9)	466	120,344	(9)	124.78	2,302.00
Texas[2]	2,369	1,105,424	32,780	1,197	461,186	17,929	165.93[8]	3,051.00
Utah[2]	357	96,685	3,173	136	59,722	2,171	183.69	2,997.80
Vermont	815	47,182	1,859	84	15,446	734	191.91	2 332.63
Virginia	2,812	458,708	12,336	556	148,490	5.506	132.96	2,304.00
Washington	1.137	297,366	9,206	371	138,648	5 523	231.95	3,294.00
West Virginia[2]	3 895	299,390	10,497	385	113,745	5.747	131.66	2,445.00
Wisconsin	5,641	354,285	14,171	479	145,490	6,631	201 11	2,883.00
Wyoming[3]	654	43,631	1,710	97	13,313	943	265.29	2,552 00

[1] The combined figure for elementary and secondary schools is 3,356. [2] 1950–51. [3] In elementary schools: $393.07 in secondary schools. [4] Figure not available. [5] Includes principals and supervisors. [6] White only; $2,434 71 for Negroes. [7] Does not include 78 consolidated school buildings. [8] 1948–49. [9] The combined figure for elementary and secondary schools is 22,202. [10] Total number of elementary and secondary teachers is 4,514.

State Compulsory Attendance Laws

State	Date of enactment*	Age limits	State	Date of enactment*	Age limits
Alabama	1915	7–16	Nebraska	1887	7–16
Arizona	1899	8–16	Nevada	1873	7–18
Arkansas	1909	7–16	New Hampshire	1871	8–16
California	1874	8–16	New Jersey	1875	7–16
Colorado	1889	8–16	New Mexico	1891	6–17
Connecticut	1872	7–16	New York	1874	7–16
Delaware	1907	7–16	North Carolina	1907	7–16
D. C.	1864	7–16	North Dakota	1883	7–17
Florida	1915	7–16	Ohio	1877	6–18
Georgia	1916	7–16	Oklahoma	1907	7–18
Idaho	1887	7–16	Oregon	1889	7–16
Illinois	1883	7–16	Pennsylvania	1895	8–17
Indiana	1897	7–16	Rhode Island	1883	7–16
Iowa	1902	7–16	South Carolina	1915	7–16
Kansas	1874	7–16	South Dakota	1883	7–16
Kentucky	1896	7–16	Tennessee	1905	7–16
Louisiana	1910	7–16	Texas	1915	7–16
Maine	1875	7–17	Utah	1890	8–18
Maryland	1902	7–16	Vermont	1867	7–16
Massachusetts	1852	7–16	Virginia	1908	7–16
Michigan	1871	6–16	Washington	1871	8–16
Minnesota	1885	8–16	West Virginia	1897	7–16
Mississippi	1918	7–16	Wisconsin	1879	7–16
Missouri	1905	7–16	Wyoming	1876	7–16
Montana	1883	8–16			

* Date of enactment of first compulsory education law.

Statistics of State School Systems, 1935 to 1949

Years	Enrollment					High-school graduates		Expense per pupil in average daily attendance	Value of textbooks free to pupils
		Elementary schools		Secondary schools					
	Total	Boys	Girls	Boys	Girls	Boys	Girls		
1935–1936	26,367,098	10,455,192	9,937,369	2,948,765	3,025,772	447,409	484,874	$ 74.30	$22,595,179
1937–1938	25,975,108	10,153,007	9,595,167	3,032,963	3,193,971	481,906	552,252	83.87	24,230,207
1939–1940	25,433,542	9,681,465	9,150,633	3,257,952	3,350,492	538,273	604,973	88.09	25,614,116
1940–1941	25,296,138	9,529,587	9,052,638	3,273,606	3,440,307	536,715	615,508	92.38	26,076,002
1941–1942	24,562,473	9,336,067	8,838,601	3,089,434	3,298,371	535,156	626,043	98.31	27,012,724
1942–1943	24,155,146	9,237,002	8,796,078	2,891,633	3,230,433	489,115	597,383	104.85	27,090,248
1943–1944	23,266,616	9,081,270	8,631,826	2,553,356	3,000,164	393,418	559,836	116.99	23,987,277
1944–1945	23,225,784	9,053,952	8,611,642	2,565,699	2,994,491	384,673	559,863	125.41	23,954,676
1945–1946	23,299,941	9,098,013	8,579,731	2,633,117	2,989,080	418,725	555,682	136.41	27,447,595
1946–1947	23,659,158	9,187,105	8,634,376	2,822,633	3,015,044	505,218	568,461	152.80	29,805,963
1947–1948	23,944,532	9,429,268	8,861,959	2,747,061	2,906,244	507,649	565,529	179.43	37,553,364
1948–1949	24,476,658	9,707,391	9,110,863	2,759,298	2,899,106	499,984	557,960	197.65	43,481,000

Junior College Enrollment, 1919 to 1948

Source: U. S. Office of Education.

Year	Publicly controlled		Privately controlled		Total	
	Number	Enrollment	Number	Enrollment	Number	Enrollment
1919–20	10	2,940	42	5,162	52	8,102
1929–30	129	36,501	148	19,115	277	55,616
1935–36	187	70,557	228	31,896	415	102.453
1937–38	209	82,041	244	39,469	453	121,510
1939–40	217	107,553	239	42,301	456	149,854
1941–42	231	100,783	230	40,489	461	141,272
1943–44	210	56,439	203	28,177	413	84,616
1945–46	235	109,640	225	46,816	460	156,456
1947–48	242	178,196	230	61,977	472	240,173

Total School Enrollments, 1929–30 to 1947–48

Source: U. S. Office of Education.

Type of school by level	1929–30	1933–34	1939–40	1943–44	1945–46	1947–48
Kindergartens:						
Public	723,443	601,775	594,647	697,468	772,957	988,680
Private	54,456	37,506	57,341	57,341*	57,341*	182,000
Elementary:						
Public	20,555,150	20,228,014	18,283,906	17,053,473	16,954,395	17,326,222
Private	2,255,430	2,333,191	2,106,030	2,021,618	2,213,362	2,278,703
Total kindergarten and elem'y schools	23,588,479	23,200,486	21,044,924	19,829,900	19,998,055	20,775,605
Secondary:						
Public high schools	4,399,422	5,669,156	6,601,444	5,553,520	5,622,197	5 653,305
Private high schools	341,158	360,092	457,768	420,961	565,108	602,484
Other†	59,287	61,501	54,070	46,409	40,044	39,595
Total secondary schools	4,799,857	6,090,749	7,113,282	6,020,890	6,227,349	6,295,384
Normal schools and teachers colleges	176,462	136,184	177,045	74,379	119,812	193,342
Colleges, univ., and prof. schools	924,275	919,176	1,317,158	803,138	1,557,039	2,425,920
Total higher education	1,100,737	1,055,360	1,494,203	877,517	1,676,851	2,616,262
Priv. comm. & bus. schools (day and eve.)	179,756	102,286	634,546	488,112	563,970‡	493,330‡

* Data are for 1939–40. † Secondary grades in colleges and teacher-training schools. ‡ Estimated.

Estimated Public and Private School Enrollment, 1951–52

Source: U. S. Office of Education.

Type of school	Enrollment
Elementary schools	
Public	21,318,000
Private and parochial	3,025,000
Residential schools for exceptional children	60,000
Model and practice schools in teacher-training institutions	37,000
Federal schools for Indians	28,000
Total elementary	24,468,000
Secondary schools	
Public	5,456,000
Private and parochial	658,000
Residential schools for exceptional children	10,000
Model and practice schools in teacher-training institutions and preparatory dept. of colleges	39,000
Federal schools for Indians	5,000
Total secondary	6,168,000

Type of school	Enrollment
Higher Education	
Universities, colleges, professional schools, including junior colleges and normal schools	2,225,000
Other schools	
Private commercial	175,000
Nurse-training schools (not affiliated with colleges and universities)	85,000
Total other schools	260,000
Grand total	33,121,000

NOTE: These estimates include enrollments for the entire school or college year; they are not restricted to September enrollments alone.

Number Surviving Through College per 1,000 Pupils

Source: U. S. Office of Education.

Grade or year	1929–1930	1930–1931	1931–1932	1932–1933	1933–1934	1934–1935	1935–1936	1936–1937	1937–1938	1938–1939	1939–1940	1940–1941
Elementary: Fifth*	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Sixth	954	943	929	935	944	953	946	954	954	955	953	958
Seventh	861	872	884	889	895	892	889	895	901	908	916	910
Eighth	825	824	818	831	836	842	839	849	850	853	845	886
High School: I	760	770	780	786	792	803	814	839	811	796	781	781
II	647	652	651	664	688	711	725	704	679	655	673	697
III	512	529	546	570	594	610	587	554	519	532	552	566
IV	454	463	481	510	489	512	466	425	423	444	476	507
Graduates	403	417	432	455	462	467	439	393	398	419	459	431
Year of graduation	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
College: I	139	148	154	160	142	129	119	121	†	†	†	†
Graduates	70	69	68	47	49	51	†	†	....	....	....	....
Year of graduation	1941	1942	1943	1944	1945	1946	1947	1948	....	....	....	....

* Fourth grade in 11-grade system; fifth grade in 12-grade system. † Because of veteran students, it is not possible to calculate retention rates.

White and Negro School Statistics in Selected States, 1948–49

State	No. pupils to a teacher		Average annual salary of teachers		Expenditure per pupil in A.D.A.*		Negro high-school graduates	
	White schools	Negro schools	White schools	Negro schools	White schools	Negro schools	Boys	Girls
Alabama	26.0	27.8	$2,163	$1,778	$120.50	$ 81.83	1,638†	2,495†
Arkansas	26.0	31.3	1,718	1,262	111.15	62.22	675	954
Delaware	21.2	24.4	.....	.....	.....	.....	79	86
D. C.	23.3	26.6	3,840	3,619	281.41	210.42	390	604
Florida	23.8	25.4	2,935	2,535	188.35	131.67	1,308†	1,433†
Georgia	23.2	27.9	.....	.....	.....	.....	1,294	2,128
Kentucky	26.1	23.5	.....	.....	.....	.....	513	705
Louisiana	22.8	30.3	2,938	2,388	.....	.....	235	452
Maryland	26.3	27.7	.....	.....	.....	.....	563	847
Mississippi	27.3	34.4	1,841	682	122.74	26.81	883	1,407
Missouri	24.6	27.1	2,265	2,793	.....	.....	572	797
North Carolina	28.7	30.8	2,428	2,464	131.85	115.02	2,273	3,506
Oklahoma	25.1	22.7	2,299	2,174	166.31	175.32	535	567
South Carolina	23.3	25.8	2,019	1,403	148.48	69.65	769†	1,315†
Tennessee	25.8	27.7	1,845	1,843	.....	.....	935†	1,267†
Texas	24.7	22.9	2,579	2,175	.....	.....	2,123	3,105
Virginia	27.1	31.9	2,255	2,178	.....	.....	1,365	2,106
West Virginia	28.0	29.5	.....	.....	.....	.....	396	521
Total	25.5	28.2	.....	.....	.....	.....	16,546†	24,295†

* A.D.A. average daily attendance. † Estimated. *Source, this page:* U. S. Office of Education.

High-school and College Graduates, 1900 to 1948

(Public and private schools)

Year of graduation	HIGH SCHOOL			COLLEGE*		
	Men	Women	Total	Men	Women	Total
1900	38,075	56,808	94,883	17,220	8,104	25,324
1910	63,676	92,753	156,429	22,557	11,621	34,178
1920	123,684	187,582	311,266	31,980	16,642	48,622
1929–30	300,376	366,528	666,904	73,615	48,869	122,484
1940–41	578,718	642,757	1,221,475	109,546	76,954	186,500
1942–43	527,100	635,184	1,162,284	76,182	75,510	151,692
1944–45	431,396	615,528	1,046,924	57,270	73,755	131,025
1945–46	466,926	613,107	1,080,033	58,664	77,510	136,174
1946–47	558,000	631,000	1,189,000	116,890	86,410	203,300
1947–48	562,863	627,046	1,189,909	175,456	95,563	271,019
1948–49	499,984	557,960	1,057,944	264,168	102,466	366,634

* Bachelors and first professional degrees.

Public and Private Residential Schools for Exceptional Children

Type and year	States reporting*	Schools reporting	Pupils
Blind:			
1922	40	49	4,666
1927	42	52	5,283
1931	41	55	5,530
1936	43	57	5,921
1940	42	52	5,947
1947	43	56	5,235
Deaf:			
1922	44	76	11,454
1927	45	77	13,966
1931	46	84	14,890
1936	47	81	15,505
1940	47	81	14,815
1947	47	81	13,123
Mentally deficient:			
1936	47	130	21,889
1940	47	105	21,883
1947	47	140	21,562
Epileptic:			
1940	†	†	1,117
1947	10	10	1,095
Delinquent:			
1936	50	155	31,418
1940	51	144	29,384
1947	51	167	22,745

* Includes D. C., Territory of Hawaii and Puerto Rico. † Data not available. NOTE: Total number of children (all types), 1946–47: Continental U. S., 63,137; outlying parts of the U. S., 624.

School Enrollment, 1940 and 1950

Source: Department of Commerce, Bureau of the Census.

Year and age	Male			Female			Total		
		Enrollment			Enrollment			Enrollment	
	Population	Number	%	Population	Number	%	Population	Number	%
APRIL, 1940									
5 years old	1,087,811	190,842	17.5	1,054,596	194,318	18.4	2,142,407	385,160	18.0
6 years old	1,041,757	710,525	68.2	1,012,628	709,526	70.1	2,054,385	1,420,051	69.1
7 to 9 years old	3,289,255	3,096,174	94.1	3,198,575	3,022,852	94.5	6,487,830	6,119,026	94.3
10 to 13 years old	4,734,213	4,510,906	95.3	4,605,992	4,404,763	95.6	9,340,205	8,915,669	95.5
14 to 17 years old	4,902,896	3,869,470	78.9	4,817,523	3,839,401	79.7	9,720,419	7,708,871	79.3
18 and 19 years old	2,495,373	769,773	30.8	2,523,461	679,712	26.9	5,018,834	1,449,485	28.9
20 to 24 years old	5,692,392	466,895	8.2	5,895,443	293,942	5.0	11,587,835	760,837	6.6
Total	23,243,697	13,614,585	58.6	23,108,218	13,144,514	56.9	46,351,915	26,759,099	57.7
OCTOBER, 1950*									
5 years old	1,438,000	281,000	19.5	1,378,000	304,000	22.1	2,816,000	585,000	20.8
6 years old	1,463,000	1,368,000	93.5	1,402,000	1,351,000	96.4	2,865,000	2,719,000	94.9
7 to 9 years old	4,237,000	4,186,000	98.8	4,064,000	4,024,000	99.0	8,301,000	8,210,000	98.9
10 to 13 years old	4,649,000	4,587,000	98.7	4,497,000	4,425,000	98.4	9,146,000	9,012,000	98.5
14 and 15 years old	2,189,000	2,084,000	95.2	2,124,000	2,003,000	94.3	4,313,000	4,087,000	94.8
16 and 17 years old	2,039,000	1,484,000	72.8	2,031,000	1,417,000	69.8	4,070,000	2,901,000	71.3
18 and 19 years old	1,904,000	680,000	35.7	2,132,000	519,000	24.3	4,036,000	1,199,000	29.7
20 to 24 years old	5,141,000	733,000	14.3	5,787,000	268,000	4.6	10,928,000	1,001,000	9.2
Total	23,060,000	15,403,000	66.8	23,416,000	14,311,000	61.1	46,476,000	29,714,000	63.9

* In addition, there is the following enrollment of persons 25 to 29 years of age: male, 333,000; female, 27,000.

Degrees Granted by Institutions of Higher Education, 1949–50

Source: U. S. Office of Education.

Field	Bachelor's and first professional		Master's and second professional		Doctor's	
	Men	Women	Men	Women	Men	Women
Agriculture	10,766	142	1,070	10	312	4
Architecture	2,441	122	159	7	1	...
Biology	8,121	2,307	419	130	69	12
Business and commerce	65,011	6,226	4,006	329	52	6
Chemistry	9,104	1,485	1,368	208	914	39
Dentistry	2,561	18	...	...	...	...
Economics	13,471	1,102	807	114	191	9
Education	18,882	27,753	10,588	7,723	719	142
Engineering	52,071	175	4,481	15	416	1
English	8,223	9,023	1,320	939	181	49
Fine arts	2,590	3,117	345	180	6	6
History	10,242	3,325	1,373	428	246	29
Home economics	91	7,885	15	630	1	16
Journalism	3,848	1,089	271	44	3	...
Language, modern	1,752	2,737	457	464	135	33
Law	13,891	421	492	21	26	1
Mathematics	4,946	1,446	784	190	151	9
Medicine, M.D. only	5,028	584	...	...	...	...
Music	4,069	3,865	942	547	32	2
Nursing	23	3,269	5	363	...	2
Pharmacy	5,310	441	92	22	47	1
Philosophy	2,449	386	248	29	69	14
Physical education	8,657	2,397	1,091	315	73	14
Physics	3,287	127	888	34	353	5
Political science	5,366	980	597	113	117	10
Psychology	6,058	3,524	948	368	241	42
Social sciences*	5,270	2,202	261	170	42	7
Sociology	3,848	4,039	373	179	80	18
Theology	3,010	211	528	69	130	2
Zoology	2,727	562	435	116	102	23
Arts†	9,365	2,920	952	374	27	...
Sciences†	5,604	1,076	379	47	29	1
Total‡	329,819	103,915	41,237	16,982	5,990	643

* Not elsewhere classified. † Major not specified. ‡ Includes studies not listed.

Federal Government Allotment for School Lunch Program, 1950 and 1951

Source: U. S. Department of Agriculture.

State	1950	1951*	State	1950	1951*
Alabama	$2,370,991	$2,480,528	Nebraska	$ 434,329	$ 494,103
Arizona	360,718	414,193	Nevada	35,867	47,738
Arkansas	1,859,544	1,678,059	New Hampshire	232,522	229,276
California	2,713,258	3,148,672	New Jersey	1,316,330	1,467,843
Colorado	441,686	512,286	New Mexico	351,947	397,263
Connecticut	533,015	597,774	New York	3,539,245	3,742,108
Delaware	79,657	85,986	North Carolina	2,877,006	3,053,422
District of Columbia	165,129	215,783	North Dakota	223,513	277,904
Florida	1,131,899	1,250,744	Ohio	2,631,240	2,797,851
Georgia	2,412,991	2,408,573	Oklahoma	1,523,151	1,485,538
Idaho	256,100	306,382	Oregon	594,819	655,183
Illinois	2,388,327	2,394,660	Pennsylvania	2,617,281	3,371,503
Indiana	1,568,716	1,613,903	Rhode Island	219,531	245,259
Iowa	1,161,915	969,550	South Carolina	1,728,931	1,828,324
Kansas	755,695	824,855	South Dakota	161,426	210,462
Kentucky	2,156,621	2,224,937	Tennessee	2,154,441	2,310,385
Louisiana	1,819,234	1,796,974	Texas	3,765,057	3,993,698
Maine	371,907	425,954	Utah	352,250	390,668
Maryland	669,498	713,214	Vermont	174,259	184,007
Massachusetts	1,377,356	1,538,893	Virginia	1,679,751	1,698,641
Michigan	2,220,389	2,410,144	Washington	848,770	914,811
Minnesota	1,261,212	1,265,210	West Virginia	1,263,176	1,260,747
Mississippi	2,002,871	2,179,304	Wisconsin	1,289,085	1,344,994
Missouri	1,649,213	1,606,215	Wyoming	104,137	116,880
Montana	188,386	188,599	TOTAL	$62,034,392	$65,770,000

* Preliminary.

Federal Funds Allocated to the States, Fiscal Year 1948–49

Source: U. S. Office of Education.

Purpose	Amount	Purpose	Amount
Allocations of federal funds & federal property		Allocations administered by Dept. of Agriculture	
More complete endowment and support of land-grant colleges	$ 5,030,000	Agricultural experiment stations	9,703,708
Vocational education*	27,127,882	Co-op. agricultural ext. service	30,836,263
Federally affected areas	5,853,862	Forest grazing lands	7,965,288
Vocational rehabilitation	18,697,993	School lunch program	
Total	56,709,737	Cash distribution	58,875,000
		Commodity distribution	36 049.931
Allocations for the education of veterans		Total	143,430,190
Total†	3,058,578,230		

* Below college grade. † Includes amount for tuition, equipment, supplies and materials; subsistence allowances; and building, equipment, and veteran facilities.

Vocational- and Special-School Enrollment, 1949*

Source: U. S. Office of Education.

Type of class	Agriculture	Distributive occupations	Home economics	Trades & industry	Total
Evening	290,275	207,621	606,938	267,883	1,372,717
Part-time	27,319	104,987	107,275	319,648	559,229
All-day	334,010	.....	614,308	214,382	1,162,700
Total	651,604	312,608	1,328,521	801,913	3,094,646

* Provisional figures.

Academic Degree Abbreviations

Source: American Council on Education.

Ae.E.	Aeronautical Engineer
B.A.	Bachelor of Arts
B.Ag.	Bachelor of Agriculture
B.App.Arts	Bachelor of Applied Arts
B.Arch.	Bachelor of Architecture
B.B.A.	Bachelor of Business Administration
B.B.S.	Bachelor of Business Science
B.C.E.	Bachelor of Civil Engineering
B.Ch.E.	Bachelor of Chemical Engineering
B.D.	Bachelor of Divinity
B.Dr.Art	Bachelor of Dramatic Art
B.Ed.	Bachelor of Education
B.E.E.	Bachelor of Electrical Engineering
B.F.A.	Bachelor of Fine Arts
B.J.	Bachelor of Journalism
B.L.	Bachelor of Letters
B.Litt.	Bachelor of Literature
B.Med.	Bachelor of Medicine
B.Mus.	Bachelor of Music or in Music
B.N.	Bachelor of Nursing
B.Pharm.	Bachelor of Pharmacy
B.Ph.	Bachelor of Philosophy
B.S.	Bachelor of Science
B.Th.	Bachelor of Theology
C.E.	Civil Engineer
Ch.E.	Chemical Engineer
D.C.E.	Doctor of Civil Engineering
D.C.L.	Doctor of Civil Law
D.C.S.	Doctor of Commercial Science
D.D.	Doctor of Divinity
D.D.S.	Doctor of Dental Surgery
D.Ed.	Doctor of Education
D.M.L.	Doctor of Modern Languages
D.M.S.	Doctor of Medical Science
D.P.H.	Doctor of Public Health
D.R.E.	Doctor of Religious Education
D.Sc.	Doctor of Science
D.V.M.	Doctor of Veterinary Medicine
E.E.	Electrical Engineer
E.M.	Engineer of Mines
E.Met.	Engineer of Metallurgy
G.L.	Graduate in Law
G.N.	Graduate Nurse
G.Ph.	Graduate in Pharmacy
HH.D.	Doctor of Humanities
L.H.D.	Doctor of Humane Letters
Litt.M.	Master of Letters
LL.B.	Bachelor of Laws
LL.D.	Doctor of Laws
LL.M.	Master of Laws
M.A.	Master of Arts
M.Aero.E.	Master of Aeronautical Engineering
M.C.E.	Master of Civil Engineering
M.C.S.	Master of Commercial Science
M.D.	Doctor of Medicine
M.E.	Mechanical Engineer
M.Ed.	Master of Education
Med.Sc.D.	Doctor of Medical Science
M.Eng.	Mining Engineer
M.F.	Master of Forestry
M.F.A.	Master of Fine Arts
M.Int.Med.	Master of Internal Medicine
M.M.	Master of Music
M.Mech.Eng.	Master of Mechanical Engineering
M.Mus.	Master of Music
M.N.	Master of Nursing
M.P.H.	Master of Public Health
M.R.E.	Master of Religious Education
M.R.P.	Master in Regional Planning
M.S.	Master of Science
M.Soc.Wk.	Master of Social Work
M.Surgery	Master in Surgery
M.Th.	Master of Theology
O.D.	Doctor of Optometry
Phar.D.	Doctor of Pharmacy
Ph.B.	Bachelor of Philosophy
Ph.C.	Pharmaceutical Chemist
Ph.D.	Doctor of Philosophy
Ph.G.	Graduate in Pharmacy
Ph.L.	Licentiate in Philosophy
Ph.M.	Master of Philosophy
S.Sc.D.	Doctor of Social Science
S.T.B.	Bachelor of Sacred Theology
S.T.D.	Doctor of Sacred Theology
S.T.M.	Master of Sacred Theology

Colors of Academic Degrees

Agriculture	Maize
Arts and Letters	White
Commerce & Accountancy	Drab
Dentistry	Lilac
Economics	Copper
Education	Light blue
Engineering	Orange
Fine Arts, Architecture	Brown
Forestry	Russet
Humanities	Crimson
Law	Purple
Library Science	Lemon
Medicine	Green
Music	Pink
Oratory	Silver gray
Pharmacy	Olive green
Philosophy	Dark blue
Physical Education	Sage green
Public Health	Salmon pink
Science	Golden yellow
Theology	Scarlet
Veterinary Science	Gray

Accredited U. S. Colleges and Universities

Spring Semester, 1951

Only schools accredited by at least one of the six regional accrediting associations are listed. The number of students includes only those on full-time status.

M—Male; F—Female; C—Coeducational; Co—Coordinate

* denotes that data apply for Fall semester, 1950. † denotes that women are admitted for special courses and graduate work when applied to a male school and that men are admitted when applied to a female school.

Institution, location and (date founded)	Chief executive	No. of students	Control
Adams State College; Alamoso, Colo. (1921)	N. W. Newsom	380 C	State
Adelphi College; Garden City, N. Y. (1896)	P. D. Eddy	2,212 C	Priv.
Agnes Scott College; Decatur, Ga. (1889)	W. McP. Alston	469 F	Priv.
Akron, University of; Ohio (1870)	N. P. Auburn	2,056 C	City
Alabama, Univ. of; University (1820)	J. M. Gallalee	5,527 C	State
Alabama A and M Coll.; Normal (1875)	J. F. Drake	1,127 C	State
Alabama College; Montevallo (1896)	J. T. Caldwell	658 F	State
Alabama Polytechnic Inst.; Auburn (1872)	R. B. Draughon	5,390 C	State
Alabama St. Teach. Coll.; Florence (1872)	E. B. Norton	1,329 C	State
Alabama St. Teach. Coll.; Jacksonville (1883)	Houston Cole	1,000 C	State
Alabama St. Teach. Coll.; Livingston (1835)*	W. W. Hill	495 C	State
Alabama St. Teach. Coll.; Montgomery (1874)*	H. C. Trenholm	1,935 C	State
Alabama St. Teach. Coll.; Troy (1887)	C. B. Smith	700 C	State
Albertus Magnus Coll.; New Haven, Conn. (1925)	Sister M. Coralita	198 F	Cath.
Albion College; Albion, Mich. (1835)	W. W. Whitehouse	1,267 C	Meth.
Albright College; Reading, Pa. (1856)	H. V. Masters	610 C	Ev. U. B.
Alcorn A and M Coll.; Alcorn, Miss. (1871)	J. R. Otis	626 C	State
Alfred University; Alfred, N. Y. (1857)	M. E. Drake	921 C*	State
Allegheny Coll.; Meadville, Pa. (1815)	L. T. Benezet	995 C	Priv.
Allen Univ.; Columbia, S. C. (1870)	S. R. Higgins	698 C	A.M.E.
Alma College; Alma, Mich. (1886)	J. S. Harker	466 C	Presb.
Alverno Coll.; Milwaukee, Wis. (1890)	Sister M. Augustine	300 F	Cath.
American Internat'l Coll.; Springfield, Mass. (1885)	Spencer Miller, Jr.	1,008 C	Priv.
American Univ.; Washington, D. C. (1893)	P. F. Douglass	825 C	Meth.
Amherst College; Amherst, Mass. (1821)	C. W. Cole	1,034 M	Priv.
Anderson Coll. & Theol. Seminary; Anderson, Ind. (1917)	J. A. Morrison	682 C	Ch. God
Antioch College; Yellow Springs, Ohio (1853)	Douglas McGregor	1,073 C	Priv.
Appalachian St. Teach. Coll.; Boone, N. C. (1903)	B. B. Dougherty	1,065 C	State
Aquinas College; Grand Rapids, Mich. (1923)	Msgr. A. F. Bukowski	322 C	Cath.
Arizona, Univ. of; Tucson (1885)	R. A. Harvill	5,160 C	State
Arizona St. Coll.; Flagstaff (1899)	L. A. Eastburn	536 C	State
Arizona St. Coll.; Tempe (1885)	Grady Gammage	4,126 C	State
Arkansas, Univ. of; Fayetteville (1871)	J. E. Covington	5,061 C	State
Arkansas A and M Coll.; College Heights (1909)	H. E. Thompson	1,023 C	State
Arkansas A, M & Normal Coll.; Pine Bluff (1873)	L. A. Davis	976 C	State
Arkansas St. Coll.; Jonesboro (1909)	C. R. Reng	1,255 C	State
Arkansas St. Teach. Coll.; Conway (1907)	N. M. Irby	1,300 C	State
Asbury College; Wilmore, Ky. (1890)	Z. T. Johnson	804 C	Priv.
Ashland College; Ashland, Ohio (1878)	G. L. Clayton	458 C	Breth.
Assumption Coll.; Worcester, Mass. (1917)	V. Rev. H. J. Moquin	180 M	Cath.
Atlanta University; Ga. (1867)[1]	R. E. Clement	459 C	Priv.
Atlantic Union Coll.; So. Lancaster, Mass. (1882)	L. N. Holm	411 C	Advent.
Augustana Coll.; Rock Island, Ill. (1860)	Conrad Bergendoff	1,220 C	Luth.
Augustana Coll.; Sioux Falls, S. Dak. (1860)	L. M. Stavig	579 C	Luth.
Aurora College; Aurora, Ill. (1893)	T. P. Stephens	327 C	Advent.
Austin College; Sherman, Texas (1849)	W. B. Guerrant	903 C	Presb.
Austin Peay St. Coll.; Clarksville, Tenn. (1927)	Halbert Harvill	701 C	State
Baker University; Baldwin, Kans. (1858)	N. P. Horn	502 C	Meth.
Baldwin-Wallace Coll.; Berea, Ohio (1845)	J. L. Knight	1,606 C	Meth.
Ball St. Teach. Coll.; Muncie, Ind. (1918)	J. R. Emens	2,676 C	State
Barat Coll. of Sacred Heart; Lake Forest, Ill. (1858)	Margaret Reilly	351 F	Cath.
Barber-Scotia Coll.; Concord, N. C. (1867)	L. S. Cozart	175 F	Presb.
Bard Coll.; Annandale-on-Hudson, N. Y. (1860)	J. H. Case, Jr.	228 C	Priv.
Barry Coll. for Women; Miami, Fla. (1940)	Mother. M. Gerald	215 F	Cath.
Bates College; Lewiston, Me. (1864)	C. F. Phillips	789 C	Priv.
Baylor University; Waco, Texas (1845)	W. R. White	4,245 C	Bapt.
Beaver Coll.; Jenkintown, Pa. (1853)	R. M. Kistler	550 F	Presb.
Belhaven Coll.; Jackson, Miss. (1894)	G. T. Gillespie	190 F	Presb.
Beloit Coll.; Beloit, Wis. (1846)	Carey Croneis	977 C	Priv.

Institution, location and (date founded)	Chief executive	No. of students	Control
Benedict Coll.; Columbia, S. C. (1870)*	J. A. Bacoats	727 C	Bapt.
Bennett Coll.; Greensboro, N. C. (1873)	D. D. Jones	458 F	Meth.
Bennington Coll.; Bennington, Vt. (1925)	F. H. Burkhardt	334 F	Priv.
Berea College; Berea, Ky. (1855)	F. S. Hutchins	1,154 C	Priv.
Bessie Tift Coll.; Forsyth, Ga. (1849)	W. F. Gunn	225 F	Bapt.
Bethany Coll.; Bethany, W. Va. (1840)	W. H. Cramblet	579 C*	Priv.
Bethany Coll.; Lindsborg, Kans. (1881)	Emory Lindquist	312 C	Luth.
Bethel College; No. Newton, Kans. (1887)	E. G. Kaufman	304 C	Mennon.
Bethune Cookman Coll.; Daytona Beach, Fla. (1904)	R. V. Moore	536 C	Meth.
Birmingham-Southern Coll.; Birmingham, Ala. (1856)	G. R. Stuart	693 C	Meth.
Bishop Coll.; Marshall, Texas (1881)	J. J. Rhoads	494 C	Bapt.
Black Hills Teach. Coll.; Spearfish, S. D. (1883)	R. E. Jonas	350 C	State
Blackburn Coll.; Carlinville, Ill. (1857)	R. P. Ludlum	321 C	Priv.
Blue Mountain Coll.; Blue Mountain, Miss. (1873)	L. T. Lowrey	238 F	Bapt.
Bluefield St. Coll.; Bluefield, W. Va. (1895)	H. L. Dickason	403 C	State
Boston, Teach. Coll. of the City of; Mass. (1852)	W. F. Looney	696 C	City
Boston Coll.; Chestnut Hill, Mass. (1863)	V. Rev. J. R. N. Maxwell	6,626 C	Cath.
Boston University; Mass. (1839)	H. C. Case	14,164 C	Priv.
Bowdoin Coll.; Brunswick, Me. (1794)	K. C. M. Sills	787 M	Priv.
Bowling Green St. Univ.; Bowling Green, Ohio (1910)	R. W. MacDonald	4,200 C	State
Bradley Univ.; Peoria, Ill. (1897)	D. B. Owen	3,308 C	Priv.
Brandeis Univ.; Waltham, Mass. (1948)	A. L. Sachar	685 C	Priv.
Brenau Coll.; Gainesville, Ga. (1878)	Josiah Crudup	260 F	Priv.
Briar Cliff Coll.; Sioux City, Iowa (1930)	Sister J. Marie	430 F	Cath.
Bridgewater Coll.; Bridgewater, Va. (1880)	W. D. Bowman	426 C	Breth.
Brigham Young Univ.; Provo, Utah (1875)	E. L. Wilkinson	4,127 C	Mormon
Brooklyn, Polytechnic Inst. of; N. Y. (1854)	H. S. Rogers	5,522 M	Priv.
Brooklyn College; New York (1930)	H. D. Gideonse	8,887 C	City
Brown Univ.; Providence, R. I. (1764)	H. M. Wriston	3,384 Co[2]	Priv.
Bryn Mawr Coll.; Bryn Mawr, Pa. (880)	Katherine E. McBride	716 F	Priv.
Bucknell Univ.; Lewisburg, Pa. (1846)	H. A. Hildreth	1,947 C	Bapt.
Buffalo, Univ. of; New York (1846)	T. R. McConnell	4,949 C	Priv.
Butler Univ.; Indianapolis, Ind. (1850)	M. O. Ross	3,500 C	D. Ch.
California, Univ. of; Berkeley (1868)*	R. G. Sproul	36,380 C	State
California Inst. of Tech.; Pasadena (1891)	L. A. DuBridge	1,089 M	Priv.
California St. Poly. Coll.; San Luis Obispo (1901)	J. A. McPhee	3,159 M	State
Calvin Coll.; Grand Rapids, Mich. (1876)	William Spoelhof	1,270 C	Ch. Ref.
Canisius Coll.; Buffalo, N. Y. (1870)	V. Rev. R. Schouten	2,987 M	Cath.
Capital Univ.; Columbus, Ohio (1850)	H. L. Yochum	1,075 C	Luth.
Carleton Coll.; Northfield, Minn. (1866)	L. M. Gould	937 C	Priv.
Carnegie Inst. of Tech.; Pittsburgh, Pa. (1900)	J. C. Warner	3,142 C	Priv.
Carroll College; Helena, Mont. (1910)	V. Rev. R. V. Kavanagh	341 Co	Cath.
Carroll College; Waukesha, Wis. (184)	N. V. Russell	491 C	Presb.
Carson-Newman Coll.; Jefferson City, Tenn. (1851)	Harley Fite	831 C	Bapt.
Carthage Coll.; Carthage, Ill. (1870)	Morris Wee	479 C	Luth.
Cascade Coll.; Portland, Oreg. (1918)	C. J. Pike	147 C	Priv.
Case Inst. of Tech ; Cleveland, Ohio (1880)	Elmer Hutchisson	1,192 M	Priv.
Catawba Coll.; Salisbury, N. C. (1851)	A. R. Keppel	609 C	Ev. Ref.
Catholic Univ. of America; Washington, D. C. (1887)	M. Rev. P. J. McCormick	3,967 M†	Cath.
Cedar Crest Coll.; Allentown, Pa. (1867)	D. H. Moore	355 F	Ev. Ref.
Centenary Coll. of Louisiana; Shreveport (1825)	J. J. Mickle	716 C	Meth.
Central College; Fayette, Mo. (1855)	R. L. Woodward	646 C	Meth.
Central Michigan Coll. of Ed.; Mt. Pleasant (1892)	C. L. Anspach	1,934 C	State
Central Missouri St. Coll.; Warrensburg (1871)	G. W. Diemer	1,375 C	State
Central St. Coll.; Edmond, Okla. (1891)	W. M. Chambers	1,045 C	State
Central St. Coll.; Wilberforce, Ohio (1887)	C. H. Wesley	1,005 C	State
Central Univ. of Iowa; Pella (1853)	G. T. Vander Lugt	385 C	Ref.
Central Washington Coll. of Ed.; Ellensburg (1891)	R. E. McConnell	1,439 C	State
Centre Coll. of Kentucky; Danville (1819)	W. A. Groves	432 Co	Presb.
Charleston, Coll. of; S. C. (1785)	G. D. Grice	251 C	Priv.
Chattanooga, Univ. of; Tenn. (1886)	D. A. Lockmiller	1,170 C	Priv.
Chestnut Hill Coll.; Philadelphia, Pa. (1871)	Sister M. Kostak	416 F	Cath.
Chicago, School of the Art Inst. of; Ill. (1879)	Hubert Ropp	907 C	Priv.
Chicago, Univ. of; Ill. (1891)	L. A. Kimpton	8,539 C	Priv.
Chicago Musical Coll.; Ill. (1867)	Rudolph Ganz	380 C	Priv.
Chicago Teachers Coll.; Ill. (1869)	R. M. Cook	1,082 C	City
Chico St. College; Chico, Calif. (1887)	Glenn Kendall	1,225 C	State
Cincinnati, Univ. of; Ohio (1819)	Raymond Walters	6,291 C	City
Citadel, The; The Mil. Coll. of S. C.; Charleston (1842)	Gen. C. P. Summerall	1,245 M	State
Claflin Univ ; Orangeburg, S C. (1869)	J. J. Seabrook	347 C	Meth.

Institution, location and (date founded)	Chief executive	No. of students	Control
Claremont Coll.; Claremont, Calif. (1925)[4]	E. W. Lyon	302 C	Priv.
Claremont Men's Coll.; Claremont, Calif. (1947)	G. C. S. Benson	294 M	Priv.
Clark Coll.; Atlanta, Ga. (1877)*	J. P. Brawley	800 C	Meth.
Clark Univ.; Worcester, Mass. (1887)	H. B. Jefferson	934 C	Priv.
Clarke Coll.; Dubuque, Iowa (1843)	Sister M. A. Leono	301 F	Cath.
Clarkson Memorial Coll. of Tech.; Potsdam, N. Y. (1896)	J. H. Davis	1,276 M	Priv.
Clemson Agric. Coll.; Clemson, S. C. (1889)	R. F. Poole	2,600 M	State
Coe College; Cedar Rapids, Iowa (1851)	E. C. Cumings	591 C	Priv.
Coker Coll.; Hartsville, S. C. (1908)	D. C. Agnew	276 F†	Priv.
Colby Coll.; Waterville, Me. (1813)	J. S. Bixler	1,032 C	Priv.
Colgate Univ.; Hamilton, N. Y. (1819)	E. N. Case	1,241 M	Priv.
Colorado, Univ. of; Boulder (1876)	R. L. Stearns	7,733 C	State
Colorado A and M Coll.; Fort Collins (1870)	W. E. Morgan	3,139 C	State
Colorado Coll.; Colorado Springs (1874)	W. H. Gill	1,037 C	Priv.
Colorado Sch. of Mines; Golden (1874)	J. W. Vanderwilt	950 C	State
Colorado St. Coll. of Ed.; Greeley (1890)	W. R. Ross	2,429 C	State
Columbia Coll.; Columbia, S. C. (1854)	R. W. Spears	200 F	Meth.
Columbia Univ., N. Y. C. (1754)[5]	D. D. Eisenhower	32,540 C	Priv.
Concord Coll.; Athens, W. Va. (1872)	V. H. Stewart	661 C	State
Concordia Coll.; Moorhead, Minn. (1891)	J. L. Knutson	854 C	Luth.
Connecticut, Univ. of; Storrs (1881)	A. N. Jorgensen	8,237 C	State
Connecticut Coll. for Women; New London (1911)	Rosemary Park	840 F	Priv.
Connecticut St. Teach. Coll.; Danbury (1904)	Ruth A. Haas	351 C	State
Connecticut St. Teach. Coll.; New Britain (1849)	H. D. Welte	1,015 C	State
Connecticut St. Teach. Coll.; New Haven (1893)	S. M. Brownell	983 C	State
Connecticut St. Teach. Coll.; Willimantic (1889)	J. E. Smith	255 C	State
Converse Coll.; Spartanburg, S. C. (1889)	E. M. Gwathmey	360 F	Priv.
Cooper Union; N. Y. C. (1859)	E. S. Burdell	657 C	Priv.
Cornell Coll.; Mt. Vernon, Iowa (1853)	R. D. Cole	636 C	Meth.
Cornell Univ.; Ithaca, N. Y. (1865)	D. W. Malott	9,578 C	Pr.-St.
Creighton Univ.; Omaha, Nebr. (1878)	V. Rev. C. M. Reinert	2,180 C	Cath.
Culver-Stockton Coll.; Canton, Mo. (1853)	L. E. Ziegler	364 C	Priv.
Dakota Wesleyan Univ.; Mitchell, S. Dak. (1885)		211 C*	Meth.
Dartmouth Coll.; Hanover, N. H. (1769)	J. S. Dickey	2,700 M	Priv.
Davidson Coll.; Davidson, N. C. (1837)	J. R. Cunningham	772 M	Presb.
Davis and Elkins Coll.; Elkins, W. Va. (1904)	R. B. Purdum	553 C	Presb.
Dayton, Univ. of; Ohio (1850)	Rev. G. J. Renneker	3,115 C	Cath.
Delaware, Univ. of; Newark (1833)	J. A. Perkins	1,949 C	State
Delta St. Teach. Coll.; Cleveland, Miss. (1924)	W. M. Kethley	403 C	State
Denison Univ.; Granville, Ohio (1831)	A. B. Knapp	1,163 C	Priv.
Denver, Univ. of; Colo. (1864)	A. C. Jacobs	4,733 C	Priv.
DePaul Univ.; Chicago, Ill. (1898)	C. J. O'Malley	4,817 C	Cath.
DePauw Univ.; Greencastle, Ind. (1837)	R. J. Humbert	1,742 C	Priv.
Detroit, Univ. of; Mich. (1877)	V. Rev. C. J. Steiner	5,614 C	Cath.
Dickinson Coll.; Carlisle, Pa. (1773)	W. W. Edel	823 C	Priv.
Dillard Univ.; New Orleans, La. (1930)	A. W. Dent	595 C	Priv.
Doane College; Crete, Nebr. (1872)	D. L. Crawford	332 C	Cong.
Drake Univ.; Des Moines, Iowa (1881)	H. G. Harmon	2,798 C	Priv.
Drew Univ.; Madison, N. J. (1867)	F. G. Holloway	570 C	Meth.
Drexel Inst. of Tech.; Philadelphia, Pa. (1891)	James Creese	2,950 C	Priv.
Drury Coll.; Springfield, Mo. (1873)	J. F. Findlay	773 C	Priv.
Dubuque, Univ. of; Iowa (1852)	Rollo LaPorte	537 C	Presb.
Duchesne Coll.; Omaha, Nebr. (1881)	Mother Mary Downey	250 F	Cath.
Duke Univ.; Durham, N. C. (1838)	A. H. Edens	4,605 C	Priv.
Dunbarton Coll. of Holy Cross; Washington, D. C. (1941)	Sister M. Dolores	234 F	Cath.
Duquesne Univ.; Pittsburgh, Pa. (1911)	V. Rev. V. F. Gallagher	2,606 C	Cath.
D'Youville Coll.; Buffalo, N. Y. (1908)	Sister Margaret	392 F	Cath.
Earlham Coll.; Richmond, Ind. (1847)	T. E. Jones	701 C	Friends
East Carolina Coll.; Greenville, N. C. (1907)	J. D. Messick	2,075 C	State
East Central St. Coll.; Ada, Okla. (1909)	C. F. Spencer	1,171 C	State
East Tennessee St. Coll.; Johnson City (1909)	B. E. Dossett	2,000 C	State
East Texas St. Teach. Coll.; Commerce (1917)	J. G. Goo	2,399 C	State
Eastern Illinois St. Coll.; Charleston (1895)	R. G. Buzzard	1,104 C	State
Eastern Kentucky St. Coll.; Richmond (1906)	W. F. O'Donnell	1,438 C	State
Eastern Montana Coll. of Ed.; Billings (1926)	A. G. Peterson	500 C	State
Eastern Nazarene Coll.; Quincy, Mass. (1918)	E. S. Mann	578 C	Naz.
Eastern New Mexico Univ., Portales (1934)	F. D. Golden	706 C	State
Eastern Oregon Coll. of Ed.; La Grande (1929)	R. G. Langston	437 C	State
Eastern Washington Coll. of Ed.; Cheney (1890)	O. W. Freeman	1,068 C	State

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Elizabethtown Coll.; Elizabethtown, Pa. (1899)	A. C. Baugher	301 C	Breth.
Elmhurst Coll.; Elmhurst, Ill. (1871)	H. W. Dinkmeyer	599 C	Ev. & Ref.
Elmira Coll.; Elmira, N. Y. (1855)	Lewis Eldred	285 F	Priv.
Elon Coll.; Elon College, N. C. (1889)	L. E. Smith	522 C	Cong.
Emmanuel Coll.; Boston, Mass. (1919)	Sister M. Patricia	650 F	Cath.
Emmanuel Missionary Coll.; Berrien Springs, Mich. (1874)	P. W. Christian	1,052 C	Advent.
Emory & Henry Coll.; Emory, Va. (1836)	Rev. F. G. Gibson	431 C	Meth.
Emory Univ.; Emory University, Ga. (1836)	G. C. White	2,784 M†	Meth.
Erskine Coll.; Due West, S. C. (1839)	R. C. Grier	383 C	Presb.
Evansville Coll.; Evansville, Ind. (1854)	L. B. Hale	1,060 C	Priv.
Fairmont St. Coll ; Fairmont, W. Va. (1865)	G. H. Hand	853 C	State
Fenn Coll.; Cleveland, Ohio (1881)	C. J. Stilwell	4,000 C	Priv.
Fisk Univ ; Nashville, Tenn. (1867)	C. S. Johnson	847 C	Priv.
Florida, Univ. of; Gainesville (1853)	J. H. Miller	8,586 C	State
Florida A and M Coll.; Tallahassee (1887)	G. W. Gore, Jr.	1,955 C	State
Florida Southern Coll.; Lakeland (1885)	L. M. Spivey	2,000 C	Meth.
Florida State Univ.; Tallahassee (1857)	D. S. Campbell	5,188 C	State
Fordham University; N. Y. C. (1841)	Rev. L. J. McGinley	6,649 C*	Cath.
Fort Hays Kansas State Coll.; Hays (1901)	M. C. Cunningham	960 C	State
Franklin and Marshall Coll.; Lancaster, Pa. (1787)	T. A. Distler	1,171 M	Priv.
Franklin Coll. of Indiana; Franklin (1834)	H. W. Richardson	463 C	Bapt.
Fresno State Coll.; Fresno, Calif. (1911)	A. E. Joyal	3,024 C	State
Furman Univ.; Greenville, S. C. (1826)	J. L. Plyler	1,141 C	Bapt.
Gen. Beadle St. Teach. Coll.; Madison, S. Dak. (1881)	V. A. Lowry	150 C	State
Geneva Coll.; Beaver Falls, Pa. (1848)	C. M. Lee	652 C	Presb.
George Peabody Coll. for Teach.; Nashville, Tenn. (1875)	H. H. Hill	1,816 C	Priv.
George Pepperdine Coll.; Los Angeles, Calif. (1937)*	H. M. Tiner	1,139 C	Priv.
George Washington Univ.; Washington, D. C. (1821)	C. H. Marvin	9,937 C	Priv.
George Williams Coll.; Chicago, Ill. (1890)	H. C. Coffman	422 C	Priv.
Georgetown Coll.; Georgetown, Ky. (1829)	S. S. Hill	597 C	Bapt.
Georgetown Univ.; Washington, D. C. (1789)	V. Rev. H. Guthrie	5,330 M†	Cath.
Georgia, Univ. of; Athens (1785)	O. C. Aderhold	8,426 C	State
Georgia Inst. of Tech.; Atlanta (1885)	B. R. Van Leer	3,557 M	State
Georgia St. Coll. for Women; Milledgeville (1889)	G. H. Wells	765 F	State
Georgia Teach. Coll ; Collegeboro (1908)	Z. S. Henderson	712 C	State
Georgian Court Coll.; Lakewood, N. J. (1908)	Sister Marie Anna	204 F	Cath.
Gettysburg Coll.; Gettysburg, Pa. (1832)	H. W. Hanson	1,231 C	Luth.
Glenville St. Coll.; Glenville, W. Va. (1872)	H. B. Heflin	382 C	State
Gonzaga Univ.; Spokane, Wash. (1887)	Rev. F. E. Corkery	1,296 C	Cath.
Good Counsel Coll.; White Plains, N. Y. (1923)	Mother M. Dolores	296 F	Cath.
Goshen Coll.; Goshen, Ind. (1894)	E. E. Miller	517 C	Menn.
Goucher Coll.; Baltimore, Md. (1885)	O. F. Kraushaar	669 F	Priv.
Grambling Coll.; Grambling, La. (1900)	R. W. E. Jones	1,133 C	State
Great Falls, Coll. of; Great Falls, Mont. (1932)	Msgr. J. J. Donovan	415 C	Cath.
Greensboro Coll.; Greensboro, N. C. (1838)	L. L. Gobbel	345 F	Meth.
Greenville Coll.; Greenville, Ill. (1892)	H. J. Long	401 C*	Meth.
Grinnell Coll.; Grinnell, Iowa (1846)	S. N. Stevens	954 C	Priv.
Grove City Coll.; Grove City, Pa. (1876)	W. C. Ketler	1,173 C	Priv.
Guilford Coll.; Guilford College, N. C. (1837)	C. A. Milner	484 C	Friends
Gustavus Adolphus Coll.; St. Peter, Minn. (1862)	E. M. Carlson	878 C	Luth.
Hamilton Coll.; Clinton, N. Y. (1812)	R. W. McEwen	571 F*	Priv.
Hamline Univ.; St. Paul, Minn. (1854)	H. R. Anderson	1,000 C	Meth.
Hampden-Sydney Coll.; Hampden-Sydney, Va. (1766)	E. G. Gammon	399 M	Presb.
Hampton Inst.; Hampton, Va. (1868)	A. G. Moron	1,259 C	Priv.
Hanover Coll.; Hanover, Ind. (1827)	A. G. Parker	594 C	Priv.
Hardin-Simmons Univ.; Abilene, Texas (1891)	R. N. Richardson	1,469 C	Bapt.
Harpur Coll.; Endicott, N. Y.	G. G. Bottle	432 C	State
Harris Teach. Coll.; St. Louis, Mo. (1857)	C. A. Naylor	741 C	City
Hartwick Coll.; Oneonta, N. Y. (1928)	H. J. Arnold	551 C	Luth.
Harvard Univ.; Cambridge, Mass. (1636)	J. B. Conant	10,484 M†	Priv.
Hastings Coll.; Hastings, Nebr. (1882)	W. M. French	622 C	Presb.
Haverford Coll.; Haverford, Pa. (1833)	G. F. White	500 M	Friends
Heidelberg Coll.; Tiffin, Ohio (1851)	Terry Wickham	679 C	Ev. & Ref.
Henderson St. Teach. Coll.; Arkadelphia, Ark. (1929)	D. D. McBrien	1,234 C	State
Hendrix Coll.; Conway, Ark. (1884)	M. L. Ellis	514 C	Meth.
Hillsdale Coll.; Hillsdale, Mich. (1844)	H. L. Turner	500 C	Priv.
Hiram Coll.; Hiram, Ohio (1850)	P. H. Fall	554 C	Priv.
Hofstra Coll.; Hempstead, N. Y. (1935)	J. C. Adams	2,123 C	Priv.

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Hollins Coll.; Hollins College, Va. (1842)	J. R. Everett	325 F	Priv.
Holy Cross, Coll. of; Worcester, Mass. (1843)	V. Rev. J. A. O'Brien	1,712 M	Cath.
Holy Names, Coll. of; Oakland, Calif. (1880)	Sister M. M. Rose	315 F	Cath.
Holy Names Coll.; Spokane, Wash. (1907)	Sister M. F. Xavier	40 F	Cath.
Hood Coll.; Frederick, Md. (1893)	A. G. Truxal	505 F	Priv.
Hope Coll.; Holland, Mich. (1866)	I. J. Lubbers	812 C	Ref.
Houghton Coll.; Houghton, N. Y. (1883)	S. W. Paine	671 C	Meth.
Howard Coll.; Birmingham, Ala. (1842)	H. G. Davis	929 C	Bapt.
Howard Payne Coll.; Brownwood, Texas (1889)	T. H. Taylor	800 C	Bapt.
Howard Univ.; Washington, D. C. (1867)	M. W. Johnson	3,773 C	Priv.
Humboldt St. Coll.; Arcata, Calif. (1913)	C. H. Siemens	636 C	State
Hunter College; N. Y. C. (1870)	Eleanor H. Grady	7,543 F†	City
Huntingdon Coll.; Montgomery, Ala. (1854)	Hubert Searcy	680 C	Meth.
Huron Coll.; Huron, S. Dak. (1883)	G. F. McDougall	349 C	Presb.
Idaho, Coll. of; Caldwell (1893)	P. M. Pitman	462 C	Presb.
Idaho, Univ. of; Moscow (1889)	J. E. Buchanan	3,482 C	State
Idaho St. Coll.; Pocatello (1947)	C. W. McIntosh	1,063 C	State
Illinois, Univ. of; Urbana (1867)	G. D. Stoddard	22,416 C	State
Illinois Coll.; Jacksonville (1829)	H. G. Hudson	457 C	Priv.
Illinois Inst. of Tech.; Chicago (1892)		2,645 C	Priv.
Illinois St. Normal Univ.; Normal (1857)	R. W. Fairchild	2,449 C	State
Illinois Wesleyan Univ.; Bloomington (1850)	M. J. Holmes	938 C	Meth.
Immaculata Coll.; Immaculata, Pa. (1920)	Msgr. V. L. Burns	336 F	Cath.
Immaculate Heart Coll.; Los Angeles, Calif. (1916)	Sister M. Thecla	543 F	Cath.
Incarnate Word Coll.; San Antonio, Texas (1881)	Sister M. Columkille	387 F	Cath.
Indiana Central Coll.; Indianapolis (1902)	I. L. Esch	351 C	Ev. U. B.
Indiana St. Teach. Coll.; Terre Haute (1865)	R. N. Tirey	1,857 C	State
Indiana Univ.; Bloomington (1820)	H. B. Wells	12,457 C	State
Iowa, State Univ. of; Iowa City (1847)	V. M. Hancher	8,192 C	State
Iowa St. Coll. of A & M Arts; Ames (1858)	C. E. Friley	8,135 C	State
Iowa St. Teach. Coll.; Cedar Falls (1876)	J. W. Maucker	2,288 C	State
Iowa Wesleyan Coll.; Mt. Pleasant (1842)	J. R. Chadwick	401 C	Meth.
Jackson Coll.; Jackson, Miss. (1877)	J. L. Reddix	684 C	State
James Millikin Univ.; Decatur, Ill. (1901)	J. W. Malone	978 C	Presb.
Jamestown Coll.; Jamestown, N. Dak. (1883)	S. S. George	301 C	Presb.
John Carroll Univ.; Cleveland, Ohio (1886)	V. Rev. F. E. Welfle	1,580 M†	Cath.
Johns Hopkins Univ.; Baltimore, Md. (1876)*	D. W. Bronk	2,323 M†	Priv.
Johnson C. Smith Univ.; Charlotte, N. C. (1857)	Hardy Liston	662 C	Presb.
Judson Coll.; Marion, Ala. (1838)	J. I. Riddle	176 F	Bapt.
Juniata Coll.; Huntingdon, Pa. (1876)	C. N. Ellis	571 C	Breth.
Kalamazoo Coll.; Kalamazoo, Mich. (1833)	J. S. Everton	487 C	Bapt.
Kansas, Univ. of; Lawrence (1865)	F. D. Murphy	6,512 C	State
Kansas City, Univ. of; Mo. (1929)	C. R. Decker	2,854 C	Priv.
Kansas St. Coll. of Ag. & Applied Science; Manhattan (1863)	J. A. McCain	5,209 C	State
Kansas St. Teach. Coll.; Emporia (1863)	D. L. MacFarlane	1,187 C	State
Kansas St. Teach. Coll.; Pittsburg (1903)	R. H. Hughes	1,203 C	State
Kent State Univ.; Kent, Ohio (1910)	G. A. Bowman	4,481 C	State
Kentucky, Univ. of; Lexington (1865)	H. L. Donovan	5,669 C	State
Kentucky St. Coll. for Negroes; Frankfort (1886)	R. B. Atwood	545 C	State
Kentucky Wesleyan Coll.; Owensboro (1866)	O. W. Lever	207 C	Meth.
Kenyon Coll.; Gambier, Ohio (1824)	G. K. Chalmers	468 M	Priv.
Keuka Coll.; Keuka Park, N. Y. (1890)	K. G. Blyley	415 F	Priv.
King Coll.; Bristol, Tenn. (1867)	R. T. L. Liston	252 C	Presb.
Knox Coll.; Galesburg, Ill. (1837)	S. G. Umbeck	780 C	Priv.
Knoxville Coll.; Knoxville, Tenn. (1875)	J. A. Colston	290 C	Presb.
La Grange Coll.; La Grange, Ga. (1831)	W. G. Henry	250 F†	Meth.
La Salle Coll.; Philadelphia, Pa. (1863)	Brother G. Paul	1,370 M	Cath.
La Sierra Coll.; Arlington, Calif. (1922)	G. T. Anderson	854 C	Advent.
Lafayette Coll.; Easton, Pa. (1826)	R. C. Hutchison	1,524 M	Priv.
Lake Erie Coll.; Painesville, Ohio (1856)	Paul Weaver	166 F	Priv.
Lake Forest Coll.; Lake Forest, Ill. (1857)	E. A. Johnson	812 C	Presb.
Lane Coll.; Jackson, Tenn. (1882)	C. A. Kirkendoll	383 C	C.M.E.
Langston Univ.; Langston, Okla. (1897)	G. L. Harrison	666 C	State
Lawrence Coll.; Appleton, Wis. (1847)	N. M. Pusey	837 C	Priv.
Lebanon Valley Coll.; Annville, Pa. (1866)	F. K. Miller	541 C	Ev. U. B.
Lehigh Univ.; Bethlehem, Pa (1865)	M. D. Whitaker	2,674 M†	Priv.
LeMoyne Coll.; Memphis, Tenn. (1871)	H. F. Price	425 C	Priv.

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Lenoir Rhyne Coll.; Hickory, N. C. (1891)	V. R. Cromer	746 C	Luth.
Lewis & Clark Coll.; Portland, Oreg. (1867)	M. S. Odell	1,125 C	Presb.
Limestone Coll.; Gaffney, S. C (1845)	R. C. Granberry	310 F†	Priv.
Lincoln Memorial Univ.; Harrogate, Tenn. (1897)	R. L. Kincaid	402 C	Priv.
Lincoln Univ.; Jefferson City, Mo. (1866)	S. D. Scruggs	670 C	State
Lincoln Univ.; Lincoln University, Pa. (1854)	H. M. Bond	365 M	Priv.
Lindenwood Coll ; St. Charles, Mo. (1827)	F. L. McCluer	284 F	Presb.
Linfield Coll ; McMinnville, Oreg. (1858)	H. L. Dillin	550 C	Bapt.
Livingstone Coll.; Salisbury. N. C. (1885)	W. J. Trent	432 C	A.M.E.
Longwood Coll.; Farmville, Va. (1884)	D. S. Lancaster	604 F†	State
Loras Coll.; Dubuque, Iowa (1839)	S. D. Luby	838 M	Cath.
Loretto Heights Coll.; Loretto, Colo. (1918)	Sister F. Marie	457 F	Cath.
Louisiana Coll.; Pineville (1906)	Edgar Godbold	612 C	Bapt.
Louisiana Poly. Inst.; Ruston (1894)*	R. L. Ropp	2,090 C	State
Louisiana St. Univ. & A & M Coll.; Baton Rouge (1860)	T. H. Middleton	6,459 C	State
Louisville, Univ. of; Ky. (1798)	P. G. Davidson	3,400 C	City
Lowell Textile Inst.; Lowell, Mass. (1895)	M. J. Lydon	555 C	State
Loyola Coll.; Baltimore, Md. (1852)	Rev. T. J. Murray	1,119 M†	Cath.
Loyola Univ.; Chicago, Ill. (1870)	V. Rev. J. T. Hussey	6,939 M†	Cath.
Loyola Univ.; Los Angeles, Calif. (1911)	Rev. C. S. Casassa	2,012 M†	Cath.
Loyola Univ.; New Orleans, La. (1912)	V. Rev. T. J. Shields	1,459 M†	Cath.
Luther Coll.; Decorah, Iowa (1861)	J. W. Ylvisaker	702 C	Luth.
Lycoming Coll.; Williamsport, Pa. (1812)	J. W. Long	466 C	Meth.
Lynchburg Coll.; Lynchburg, Va. (1903)	O. W. Wake	532 C	D. Ch.
Macalester Coll.; St. Paul, Minn. (1885)	C. J. Turck	1,478 C	Presb.
McMurry Coll.; Abilene, Texas (1920)	H. G. Cooke	120 C	Meth.
MacMurray Coll. for Women; Jacksonville, Ill. (1846)	C. P. McClelland	459 F	Meth.
McPherson Coll.; McPherson, Kans. (1887)	D. W. Bittinger	305 C	Breth.
Madison Coll.; Harrisonburg, Va. (1909)	G. T. Miller	1,058 F†	State
Maine, Univ. of; Orono (1865)	A. A. Hauck	3,133 C	State
Manchester Coll.; N. Manchester, Ind. (1889)	V. F. Schwalm	654 C	Breth.
Manhattan Coll.; New York City (1853)	Brother B. Thomas	2,400 M	Cath.
Manhattanville Coll. of Sacred Heart; N. Y. C. (1841)	Eleanor M. O'Byrne	433 F	Cath.
Marietta Coll.; Marietta, Ohio (1835)	W. B. Irvine	704 C	Priv.
Marquette Univ.; Milwaukee, Wis. (1864)	Rev. E. J. O'Donnell	5,553 C	Cath.
Marshall Coll.; Huntington, W. Va. (1837)	S. H. Smith	2,921 C	State
Mary Baldwin Coll.; Staunton, Va. (1842)	F. B. Lewis	280 F	Presb.
Mary Hardin-Baylor Coll.; Belton, Texas (1845)	G. G. Singleton	224 F	Bapt.
Mary Manse Coll.; Toledo, Ohio (1922)	Sister V. de Paul	40 F	Cath.
Marygrove Coll.; Detroit, Mich. (1910)	Sister M. Honora	758 F	Cath.
Maryknoll Teach. Coll.; Maryknoll, N. Y. (1942)	Mother M. J. Rogers	123 F	Cath.
Maryland, Univ. of; College Park (1807)	H. C. Byrd	11,107 C	State
Maryland St. Teach. Coll.; Bowie (1867)	W. E. Henry	233 C	State
Maryland St. Teach. Coll.; Frostburg (1899)	Lillian C. Compton	388 C	State
Maryland St. Teach. Coll.; Salisbury (1925)	J. D. Blackwell	231 C	State
Maryland St. Teach. Coll.; Towson (1866)	E. T. Hawkins	837 C	State
Marylhurst Coll.; Marylhurst, Oreg. (1893)	Sister M. E. Clare	270 F	Cath.
Marymount Coll ; Salina, Kans. (1922)	Rev. Mthr. M. Chrysostom	216 F	Cath.
Marymount Coll.; Tarrytown-on-Hudson, N. Y. (1907)	M. Therese Dalton	500 F	Cath.
Maryville Coll.; Maryville, Tenn. (1819)	R. W. Lloyd	753 C	Presb.
Marywood Coll ; Scranton, Pa. (1915)	Sister M. Eugenia	570 F	Cath.
Massachusetts, Univ. of; Amherst (1863)	R. A. Van Meter	2,956 C	State
Massachusetts Inst. of Tech.; Cambridge (1861)	J. R. Killian	4,958 C	Priv.
Massachusetts St. Teach. Coll.; Bridgewater (1840)	J. J. Kelly	590 C	State
Massachusetts St. Teach Coll.; Fitchburg (1895)	E. F. White	530 C	State
Massachusetts St. Teach. Coll.; Framingham (1839)	M. F. O'Connor	585 F	State
Massachusetts St. Teach. Coll.; N. Adams (1894)	G. C. Bowman	225 C	State
Massachusetts St. Teach. Coll.; Salem (1854)	E. A. Sullivan	552 C	State
Massachusetts St. Teach. Coll ; Worcester (1871)	E. A. Sullivan	362 C	State
Memphis St. Coll.; Memphis, Tenn. (1909)	J. M. Smith	1,900 C	State
Mercer Univ.; Macon, Ga. (1833)	Spright Dowell	940 C	Bapt.
Mercyhurst Coll.; Erie, Pa. (1926)	Mthr. M. de S. Preston	250 F	Cath.
Meredith Coll.; Raleigh, N. C. (1891)	Carlyle Campbell	604 F	Bapt.
Miami, Univ of; Coral Gables, Fla. (1925)	B. F. Ashe	8,008 C	Priv.
Miami Univ.; Oxford. Ohio (1809)	E. G. Hahne	4,511 C	State
Michigan, Univ. of; Ann Arbor (1817)	H. H. Hatcher	17,993 C	State
Michigan Coll. of Mining & Tech.; Houghton (1885)	G. C. Dillman	1,321 C	State
Michigan St. Coll.; E. Lansing (1855)	J. A. Hannah	13,113 C	State
Michigan St. Normal Coll.; Ypsilanti (1849)	E. B. Elliott	2,266 C	State
Middle Tennessee St. Coll.; Murfreesboro (1909)	Q. M. Smith	1,412 C	State

Institution, location and (date founded)	Chief executive	No. of students	Control
Middlebury Coll ; Middlebury, Vt. (1800)	S. S. Stratton	1,200 C	Priv.
Midland Coll.; Fremont, Nebr (1887)	W. P. Hieronymus	390 C	Luth.
Mills Coll.; Oakland, Calif. (1852)	L. T. White, Jr.	563 F†	Priv.
Millsaps Coll.; Jackson, Miss. (1891)	M. L. Smith	672 C	Meth.
Milwaukee-Downer Coll.; Milwaukee, Wis. (1851)	J. B. Johnson	291 F	Priv.
Miner Teach. Coll.; Washington, D. C. (1851)	E. A. Clark	517 C	City
Minnesota, Univ. of; Minneapolis (1851)	J. L Morrill	18,212 C	State
Minnesota St. Teach. Coll.; Bemidji (1913)	C. R. Sattgast	451 C	State
Minnesota St. Teach. Coll.; Mankato (1867)	C. L. Crawford	2,447 C	State
Minnesota St. Teach. Coll.; Moorhead (1887)	O. W. Snarr	633 C	State
Minnesota St. Teach. Coll.; St. Cloud (1869)	J. W. Headley	353 C	State
Minnesota St. Teach. Coll.; Winona (1858)	Nels Minne	474 C	State
Misericordia Coll.; Dallas, Pa. (1923)	Sister M. Teresa	510 F	Cath.
Mississippi, Univ. of; University, Miss. (1848)	J. D. Williams	2,434 C	State
Mississippi Coll.; Clinton (1826)	D. M. Nelson	780 C	Bapt.
Mississippi Southern Coll.; Hattiesburg (1910)	R C. Cook	1,749 C	State
Mississippi St. Coll.; State College, Miss. (1878)	F. T. Mitchell	2,722 C	State
Mississippi St. Coll. for Women; Columbus (1884)	B L. Parkinson	893 F	State
Missouri, Univ. of; Columbia (1839)	F. A. Middlebush	8,960 C	State
Missouri Valley Coll.; Marshall (1887)	M. E. Collins	410 C	Presb.
Monmouth Coll.; Monmouth, Ill. (1853)	J. H. Grier	770 C	Presb.
Montana School of Mines; Butte (1893)	J. R. Van Pelt, Jr.	255 C	State
Montana St. Coll.; Bozeman (1893)	R. R. Renne	1,854 C	State
Montana St. Univ.; Missoula (1893)	Carl McFarland	2,448 C	State
Moravian Coll.; Bethlehem, Pa. (1807)	R. S. Haupert	375 M	Morav.
Morehead St. Coll.; Morehead, Ky. (1923)	C. R. Spain	650 C	State
Morehouse Coll.; Atlanta, Ga. (1867)	B. E. Mays	609 M	Priv.
Morgan St. Coll.; Baltimore, Md. (1867)	M. D. Jenkins	1,615 C	State
Morningside Coll.; Sioux City, Iowa (1889)	E. A. Roadman	747 C	Meth.
Morris Brown Coll.; Atlanta, Ga. (1885)	J. H. Lewis	581 C	A.M.E.
Mount Angel Seminary; St. Benedict, Oreg. (1887)	Rt. Rev. D. Jentges	88 M	Cath.
Mount Holyoke Coll.; S. Hadley, Mass. (1836)	R. G. Ham	1,256 F	Priv.
Mount Mary Coll.; Milwaukee, Wis. (1913)	E. A. Fitzpatrick	574 F	Cath.
Mount Mercy Coll.; Pittsburgh, Pa. (1933)	Mthr. M. F. McConnell	328 F	Cath.
Mount St. Agnes Coll.; Baltimore, Md. (1867)	Sister M. Placide	145 F	Cath.
Mount St. Joseph-on-the-Ohio, Coll. of; Same (1854)	Mother M. Zoe	432 F	Cath.
Mount St. Mary Coll.; Hooksett, N. H. (1934)	Sister M. Maurilia	247 F	Cath.
Mount St. Mary's Coll.; Emmitsburg, Md. (1808)	Rt. Rev. J L. Sheridan	475 M	Cath.
Mount St. Mary's Coll.; Los Angeles, Calif. (1925)	Sister A. Marie	457 F	Cath.
Mount St. Scholastica Coll.; Atchison, Kans. (1930)	Rev. Mthr. A. Schroll	354 F	Cath.
Mount St. Vincent, Coll. of; On-Hudson, N. Y. (1847)	F. Cardina. Spellman	568 F	Cath.
Mount Union Coll.; Alliance, Ohio (1846)	C. B. Ketcham	673 C	Priv.
Muhlenberg Coll.; Allentown, Pa. (1848)		724 M	Luth.
Mundelein Coll.; Chicago, Ill. (1930)	Sister M. J. Michael	770 F	Cath.
Murray St. Coll.; Murray, Ky. (1922)	R. H. Woods	1,263 C	State
Muskingum Coll.; New Concord, Ohio (1837)	R. N. Montgomery	808 C	Presb.
National Coll. of Ed.; Evanston, Ill. (1885)	K. R. Johnson	380 F	Priv.
Nazareth Coll.; Louisville, Ky. (1920)	Sister M. A. Coady	396 F	Cath.
Nazareth Coll.; Nazareth, Mich (1897)	Sister M. Kevin	246 F	Cath.
Nazareth Coll.; Rochester, N. Y. (1924)	Mother Rose Miriam	425 F	Cath.
Nebraska, Univ. of; Lincoln (1869)	R. G. Gustavson	7,079 C	State
Nebraska St. Teach. Coll.; Chadron (1911)	W. G. Brooks	385 C	State
Nebraska St. Teach. Coll.; Kearney (1905)	H. L. Cushing	632 C	State
Nebraska St. Teach. Coll.; Peru (1867)	N. S. Gomon	361 C	State
Nebraska St. Teach. Coll.; Wayne (1910)	J. D. Rice	653 C	State
Nebraska Wesleyan Univ.; Lincoln (1887)	C. C. Bracy	796 C	Meth.
Nevada, Univ. of; Reno (1874)	M. A. Love	1,275 C	State
New Hampshire, Univ. of; Durham (1866)	R. F. Chandler	2,921 C	State
New Hampshire Teach. Coll.; Keene (1909)	L. P. Young	469 C	State
New Hampshire Teach. Coll.; Plymouth (1870)	H. R. Jones	304 C	State
New Jersey St. Teach. Coll.; Glassboro (1923)	E. F. Bunce	523 C	State
New Jersey St. Teach. Coll.; Jersey City (1929)	F. A. Irwin	727 C	State
New Jersey St. Teach. Coll.; Newark (1913)	E. G. Wilkins	1,650 C	State
New Jersey St. Teach. Coll.; Paterson (1855)	C. S. Wightman	437 C	State
New Jersey St. Teach. Coll.; Trenton (1855)	R. L. West	860 C	State
New Jersey St. Teach. Coll.; Upper Montclair (1908)	E. DeA. Partridge	1,122 C	State
New Mexico, Univ. of; Albuquerque (1889)	T. L. Popejoy	4,078 C	State
New Mexico Coll. of A & M Arts; State College (1889)	J. W. Branson	1,336 C	State
New Mexico Highlands Univ. Las Vegas (1893)	Edward Eyring	879 C	State
New Mexico Inst. of Mining & Tech.; Socorro (1889)	E. J. Workman	202 C	State

Institution, location and (date founded)	Chief executive	No. of students	Control
New Mexico Western Coll.; Silver City (1893)	H. W. James	521 C	State
New Rochelle, Coll. of; New Rochelle, N. Y. (1904)	Mthr. M. D. Dunkerley	730 F	Cath.
New York, Coll. of the City of (1847)	H. N. Wright	14,985 C[7]	City
New York St. Coll. for Teach.; Albany (1844)	E. R. Collins	1,636 C	State
New York St. Coll. for Teach.; Buffalo (1871)	H. W. Rockwell	2,130 C	State
New York St. Teach. Coll.; Brockport (1841)	D. M. Tower	1,032 C	State
New York St. Teach. Coll.; Cortland (1863)	D. V. Smith	1,235 C	State
New York St. Teach. Coll.; Fredonia (1866)	L. R. Gregory	750 C	State
New York St. Teach. Coll.; Geneseo (1867)	H. G. Espy	626 C	State
New York St. Teach. Coll.; New Paltz (1886)	W. J. Haggerty	1,261 C	State
New York St. Teach. Coll.; Oneonta (1889)	R. F. Netzer	676 C	State
New York St. Teach. Coll.; Oswego (1861)	H. M. Rice	1,397 C	State
New York St. Teach. Coll.; Plattsburgh (1889)	C. C. Ward	782 C	State
New York St. Teach. Coll.; Potsdam (1816)	F. W. Crumb	711 C	State
New York Univ.; N. Y. C. (1831)	H. T. Heald	18,414 C	Priv.
Newark Coll. of Eng ; Newark, N. J. (1881)	R. W. Van Houten	2,034 C	C. & St.
Newberry Coll.; Newberry, S. C. (1856)	J. C. Kinard	412 C	Luth.
Niagara Univ.; Niagara Falls, N. Y. (1856)	V. Rev. F. L. Meade	1,631 C	Cath.
North Carolina A and Tech. Coll.; Greensboro (1891)	F. D. Bluford	3,099 C	State
North Carolina, Univ. of; Chapel Hill (1789)	R. B. House	5,660 C	State
North Carolina Coll.; Durham (1910)	Alfonso Elder	1,470 C	State
North Carolina St. Coll. of A & Eng.; Raleigh (1889)	J. W. Harrelson	3,615 C	State
North Carolina St. Teach. Coll.; Elizabeth City (1891)	S. D. Williams	545 C	State
North Carolina St. Teach. Coll.; Fayetteville (1877)	J. W. Seabrook	642 C	State
North Carolina St. Teach. Coll.; Winston-Salem (1897)	F. L. Atkins	509 C	State
North Carolina Woman's Coll ; Greensboro (1891)	E. K. Graham	2,431 F	State
North Central Coll.; Naperville, Ill. (1861)	C. H. Geiger	637 C	Evang.
North Dakota, Univ. of; Grand Forks (1883)	J. C. West	2,304 C	State
North Dakota Ag. Coll.; Fargo (1890)	F. S. Hultz	1,538 C	State
North Dakota St. Normal & Ind. Coll.; Ellendale (1889)	J. C. McMillan	113 C	State
North Dakota St. Teach. Coll.; Dickinson (1917)	C. E. Scott	221 C	State
North Dakota St. Teach. Coll.; Mayville (1889)	C. Lura	250 C	State
North Dakota St. Teach. Coll.; Minot (1913)	C. C. Swain	619 C	State
North Dakota St. Teach. Coll.; Valley City (1893)	R. L. Lokken	374 C	State
North Georgia Coll.; Dahlonega, Ga. (1873)	M. E. Hoag	554 C	State
North Texas St. Coll ; Denton (1890)	J. C. Matthews	4,237 C	State
Northeast Missouri St. Teach. Coll.; Kirksville (1857)	W. H. Kyle	1,222 C	State
Northeastern St. Coll.; Tahlequah, Okla. (1846)	H. E. Garrison	906 C	State
Northeastern Univ.; Boston, Mass. (1898)	C. S. Ell	4,694 C	Priv.
Northern Baptist Theol. Seminary; Chicago (1913)	C. W. Koller	373 C	Bapt.
Northern Illinois St. Teach. Coll.; DeKalb (1895)	L. A. Holmes	1,533 C	State
Northern Michigan Coll. of Ed ; Marquette (1899)	H. A. Tape	718 C	State
Northern St. Teach. Coll.; Aberdeen, S. Dak. (1899)	W. C. Levinger	644 C	State
Northwest Missouri St. Coll.; Maryville (1905)	J. W. Jones	720 C	State
Northwest Nazarene Coll.; Nampa, Idaho (1913)	L. T. Cortlett	699 C	Naz.
Northwestern St. Coll.; Alva, Okla. (1897)	S. C. Percefull	448 C	State
Northwestern St. Coll.; Natchitoches, La. (1884)	H. L. Prather	1,260 C	State
Northwestern Univ.; Evanston (1851)	J. R. Miller	8,330 C	Priv.
Norwich Univ.; Northfield, Vt. (1819)	E. N. Harmon	575 M	Priv.
Notre Dame, Univ. of; Notre Dame, Ind. (1842)	Rev. J. J. Cavanaugh	4,781 M	Cath.
Notre Dame Coll.; S. Euclid, Ohio (1923)	Mother M. Anselm	290 F	Cath.
Notre Dame Coll.; Staten Island, N. Y. (1931)	Mother St. Egbert	275 F	Cath.
Notre Dame of Maryland, Coll. of; Baltimore (1873)	Sister M. Mary	417 F	Cath.
Oberlin Coll.; Oberlin, Ohio (1833)	W. E. Stevenson	2,019 C[6]	Priv.
Occidental Coll.; Los Angeles, Calif. (1887)	A. G. Coons	1,207 C	Priv.
Ohio State Univ.; Columbus (1870)	H. L. Bevis	16,160 C	State
Ohio University; Athens (1804)	J. C. Baker	4,168 C	State
Ohio Wesleyan Univ.; Delaware (1842)	A. S. Flemming	1,911 C	Meth.
Oklahoma, Univ. of; Norman (1890)	G. L. Cross	8,094 C	State
Oklahoma A and M Coll.; Stillwater (1891)	H. G. Bennett	8,620 C	State
Oklahoma Coll. for Women; Chickasha (1908)	Dan Procter	750 F	State
Omaha, Municipal Univ. of; Omaha, Nebr. (1908)*	P. M. Bail	1,750 C	City
Oregon, Univ. of; Eugene (1872)	H. K. Newburn	4,483 C	State
Oregon Coll. of Education; Monmouth (1856)	R. J. Maaske	533 C	State
Oregon State Coll.; Corvallis (1868)	A. L. Strand	5,097 C	State
Ottawa Univ.; Ottawa, Kans. (1865)	A. B. Martin	457 C	Bapt.
Otterbein Coll.; Westerville, Ohio (1847)	J. G. Howard	784 C	Ev. U. B.
Ouachita Coll.; Arkadelphia, Ark. (1885)	S. W. Eubanks	560 C	Bapt.
Our Lady of the Elms, Coll. of; Chicopee, Mass. (1928)	Rev. C. J. Weldon	281 F	Cath.

Institution, location and (date founded)	Chief executive	No. of students	Control
Our Lady of the Lake Coll.; San Antonio, Texas (1896)	J. L. McMahon	293 F†	Cath.
Ozarks, Coll. of the; Clarksville, Ark. (1834)	F. A. Walker	353 C	Presb.
Pacific, Coll. of the; Stockton, Calif. (1851)	R. E. Burns	1,152 C	Priv.
Pacific Lutheran Coll.; Parkland, Wash. (1894)	S. C. Eastvold	720 C	Luth.
Pacific Union Coll.; Angwin, Calif. (1882)	J. E. Weaver	1,022 C	Advent.
Pacific Univ.; Forest Grove, Oreg. (1849)	W. C. Giersbach	877 C	Priv.
Paine Coll.; Augusta, Ga. (1883)	E. C. Peters	313 C	Meth.
Park Coll.; Parkville, Mo. (1875)	J. L. Zwingle	363 C	Presb.
Parsons Coll.; Fairfield, Iowa (1875)	T. E. Shearer	70 C	Presb.
Pasadena Coll.; Los Angeles, Calif. (1902)	W. T. Purkiser	636 C	Nazarene
Pennsylvania, Univ. of; Philadelphia (1740)	H. E. Stassen	17,349 Co	Priv.
Pennsylvania Coll. for Women; Pittsburgh (1869)	P. R. Anderson	468 F	Priv.
Pennsylvania St. Coll.; State College, Pa. (1855)	M. S. Eisenhower	12,083 C	State
Penn. St. Teach. Coll.; Bloomsburg (1839)	H. A. Andruss	717 C	State
Penn. St. Teach. Coll.; California (1894)	R. M. Steele	708 C	State
Penn. St. Teach. Coll.; Cheyney (1837)	J. H. Duckrey	385 C	State
Penn. St. Teach. Coll.; Clarion (1867)	P. G. Chandler	652 C	State
Penn. St. Teach. Coll.; East Stroudsburg (1893)	J. F. Noonan	773 C	State
Penn. St. Teach. Coll.; Edinboro (1862)	L. H. Van Houten	644 C	State
Penn. St. Teach. Coll.; Indiana (1875)	W. E. Pratt	1,443 C	State
Penn. St. Teach. Coll.; Kutztown (1866)	Q. A. W. Rohrbach	885 C	State
Penn. St. Teach. Coll.; Lock Haven (1870)	R. Parsons	497 C	State
Penn. St. Teach. Coll.; Mansfield (1857)	J. G. Morgan	717 C	State
Penn. St. Teach. Coll.; Millersville (1854)	D. L. Biemesderfer	771 C	State
Penn. St. Teach. Coll.; Shippensburg (1871)	H. L. Krinor	746 C	State
Penn. St. Teach. Coll.; Slippery Rock (1889)	D. W. Houk	780 C	State
Penn. St. Teach. Coll.; West Chester (1871)	C. S. Swopo	1,555 C	State
Philander Smith Coll.; Little Rock, Ark. (1868)	M. LaF. Harris	590 C	Meth.
Phillips Univ.; Enid, Okla. (1906)	E. S. Briggs	981 C	D. of C.
Pittsburgh, Univ. of; Pa. (1787)	R. H. Fitzgerald	8,984 C	Priv.
Pomona Coll.; Claremont, Calif. (1887)	E. W. Lyon	952 C	Priv.
Portland, Univ. of; Oreg. (1901)	Rev. H. R. Sweeney	1,437 C	Cath.
Prairie View A and M Coll.; Prairie View, Texas (1876)	E. B. Evans	2,200 C	State
Pratt Inst.; Brooklyn, N. Y. (1887)	Charles Pratt	1,091 C	Priv.
Presbyterian Coll.; Clinton, S. C. (1880)	M. W. Brown	401 C	Presb.
Princeton Univ.; Princeton, N. J. (1746)	H. W. Dodds	3,533 M	Priv.
Principia Coll.; Elsah, Ill. (1898)	F. E. Morgan	451 C	Ch. Sci.
Providence Coll.; Providence, R. I. (1917)	V. Rev. R. J. Slavin	1,640 M	Cath.
Puget Sound, Coll. of; Tacoma, Wash. (1888)	R. F. Thompson	1,427 C	Meth.
Purdue Univ.; Lafayette, Ind. (1869)	F. L. Hovde	9,787 C	State
Queens Coll.; Charlotte, N. C. (1857)	C. C. Jernigan	321 F†	Presb.
Queens Coll.; Flushing, N. Y. (1937)	J. J. Theobald	3,403 C	City
Radcliffe Coll.; Cambridge, Mass. (1879)[14]	W. K. Jordan	1,280 F	Priv.
Randolph-Macon Coll.; Ashland, Va. (1830)	J. E. Moreland	487 M	Meth.
Randolph-Macon Woman's Coll.; Lynchburg, Va. (1893)	T. H. Jack	602 F	Priv.
Redlands, Univ. of; Redlands, Calif. (1907)	G. H. Armacost	1,049 C	Bapt.
Reed Coll.; Portland, Oreg. (1911)	E. B. MacNaughton	574 C	Priv.
Regis Coll.; Weston, Mass. (1927)	Sister M. Alice	581 F	Cath.
Rensselaer Polytechnic Inst.; Troy, N. Y. (1824)	L. W. Houston	3,288 C	Priv.
Rhode Island, Univ. of; Kingston (1892)	C. R. Woodward	2,048 C	State
Rhode Island Coll. of Ed.; Providence (1854)	L. A. Whipple	441 C	State
Rhode Island Sch. of Design; Providence (1877)	M. W. Sullivan	694 C	Priv.
Rice Inst.; Houston, Texas (1912)	W. V. Houston	1,509 C	Priv.
Richmond, Univ. of; Va. (1832)	G. M. Modlin	1,545 Co	Bapt.
Ripon Coll.; Ripon, Wis. (1851)	C. G. Kuebler	614 C*	Priv.
Rivier Coll.; Nashua, N. H. (1933)	Sister M. St. Paschal	208 F	Cath.
Roanoke Coll.; Salem, Va. (1842)	H. S. Oberly	492 C	Luth.
Rochester, Univ. of; N. Y. (1850)	C. W. de Kiewiet	4,766 Co	Priv.
Rockford Coll.; Rockford, Ill. (1847)	Mary A. Cheek	241 F†	Priv.
Rockhurst Coll.; Kansas City, Mo. (1910)	Rev. M. E. Van Acheren	371 M	Cath.
Rollins Coll.; Winter Park, Fla. (1885)*	P. A. Wagner	630 C	Priv.
Roosevelt Coll.; Chicago, Ill. (1945)	E. J. Sparling	2,413 C	Priv.
Rosary Coll.; River Forest, Ill. (1901)	Sister M. Timothea	671 F	Cath.
Rose Polytechnic Inst.; Terre Haute, Ind. (1874)	F. L. Wilkinson, Jr.	291 M	Priv.
Rosemont Coll.; Rosemont, Pa. (1922)	Mother M. Boniface	354 F	Cath.
Russell Sage Coll.; Troy, N. Y. (1916)	L. A. Froman	575 F†	Priv.
Rutgers Univ.; New Brunswick, N. J. (1766)	L. W. Jones	7,674 Co[8]	State

Institution, location and (date founded)	Chief executive	No. of students	Control
Sacramento St Coll.; Calif. (1947)	G. A. West	2,020 C	State
St. Ambrose Coll.; Davenport Iowa (1882)	A. J. Burke	928 M†	Cath.
St. Anselm's Coll.; Manchester, N. H. (1889)	Rt. Rev. B. C. Dolan	617 M	Cath.
St. Augustine's Coll.; Raleigh, N. C. (1867)	H. L. Trigg	460 C	P. E.
St. Benedict, Coll. of; St. Joseph, Minn. (1913)	Mother R. Peters	225 F	Cath.
St. Benedict's Coll.; Atchison, Kans. (1859)	Rt. Rev. C. McDonald	555 M	Cath.
St. Bernardine of Siena Coll.; Loudonville, N. Y. (1937)	Rev. M. Kennedy	1,700 M†	Cath.
St. Bonaventure Univ.; Allegany, N. Y. (1859)	Rev. J. Lalor	1,726 M†	Cath.
St. Catherine, Coll. of; St. Paul, Minn. (1911)	Sister Antonine	767 F	Cath.
St. Edward's Seminary; Kenmore, Wash. (1931)	V. Rev. J. H. Brennan	125 M	Cath.
St. Elizabeth, Coll. of; Convent Station, N. J. (1899)	Sister M. J. Byrne	595 F	Priv.
St Francis, Coll. of; Joliet, Ill. (1920)	Sister M. Aniceta	404 F	Cath.
St. Francis Coll.; Loretto, Pa. (1847)	Rev. A. J. M. Veigle	463 C	Cath.
St. Francis Xavier Coll.; Chicago, Ill. (1912)	Sister M. Huberta	452 F	Cath.
St. John Coll.; Cleveland, Ohio (1928)	Msgr. R. B. Navin	303 F	Cath.
St. John's Univ.; Brooklyn, N. Y. (1870)	V. Rev. J. A. Flynn	6,965 C	Cath.
St. John's Univ.; Collegeville, Minn. (1857)	Baldwin Dworschak	760 M	Cath.
St. Joseph Coll.; W. Hartford, Conn. (1925)	Rev. Mthr. M. Ethelreda	387 F	Cath.
St. Joseph's Coll.; Collegeville, Ind. (1889)	V. Rev. R. H. Gross	410 M	Cath.
St. Joseph's Coll.; Emmitsburg, Md. (1809)	V. Rev. F. J. Dodd	198 F	Cath.
St. Joseph's Coll.; Philadelphia, Pa. (1851)	V. Rev. E. G. Jacklin	956 M	Cath.
St. Joseph's Coll. for Women; Brooklyn, N. Y. (1916)	Rt. Rev. W. T. Dillon	359 F	Cath.
St. Lawrence Univ.; Canton, N. Y. (1856)	E. G. Bewkes	1,312 C	Priv.
St. Louis Univ.; St. Louis, Mo. (1818)	V. Rev. P. C. Reinert	5,976 C†	Cath.
St. Martin's Coll.; Olympia, Wash. (1895)	Rt. Rev. R. Heider	226 M	Cath.
St. Mary Coll.; Xavier, Kans. (1871)	A. M. Murphy	300 F	Cath.
St. Mary of the Springs, Coll. of; Columbus, Ohio (1911)	Sister M. Angelita	230 F	Cath.
St. Mary-of-the-Wasatch, Coll. of; Salt Lake City, Utah (1926)	Sister M. Benedictus	155 F	Cath.
St. Mary-of-the-Woods Coll.; Ind. (1840)	Mother M. Helene	350 F	Cath.
St. Mary's Coll.; Notre Dame, Ind. (1844)	Sister M. Madeleva	600 F	Cath.
St. Mary's Coll.; St. Mary's Coll., Calif. (1863)	Brother W. Thomas	700 M	Cath.
St. Mary's Coll.; Winona, Minn. (1913)	Brother J. Ambrose	541 M	Cath.
St. Mary's Dominican Coll.; New Orleans, La. (1910)	Sister M. Louise	202 F	Cath.
St. Mary's Univ.; San Antonio, Texas (1852)	Rev. L. J. Blume	915 M	Cath.
St. Michael's Coll.; Winooski Park, Vt. (1904)	V. Rev. D. P. Lyons	850 M	Cath.
St. Norbert Coll.; De Pere, Wis. (1898)	Rt. Rev. S. M. Killeen	528 M	Cath.
St. Olaf Coll.; Northfield, Minn. (1874)	C. M. Granskou	1,563 C	Luth.
St. Patrick's Seminary; Menlo Park, Calif. (1898)	T. C. Mulligan	203 M	Cath.
St. Paul Seminary; St. Paul, Minn. (1896)	R. G. Bandas	302 M	Cath.
St. Peter's Coll.; Jersey City, N. J (1872)	V. Rev. J. J. Shanahan	721 M	Cath.
St. Rose, Coll. of; Albany, N. Y. (1920)	Sister Rose of Lima	640 F	Cath.
St. Scholastica, Coll. of; Duluth, Minn. (1912)	Mother Athanasius	430 F	Cath.
St. Teresa, Coll. of; Kansas City, Mo. (1867)	Sister M. Jennings	303 F	Cath.
St. Teresa, Coll. of; Winona, Minn. (1911)	Sister M. Rachael	535 F	Cath.
St. Thomas, Coll. of; St. Paul, Minn. (1885)	V. Rev. V. J. Flynn	1,450 M	Cath.
St. Vincent Coll.; Latrobe, Pa. (1846)	Rt. Rev. D. O. Strittmatter	727 M	Cath.
Salem Academy & Coll.; Winston-Salem, N. C. (1772)	D. H. Gramley	296 F	Morav
Sam Houston St. Teach. Coll.; Huntsville, Texas (1879)	Harmon Lowman	1,628 C	State
San Diego St. Coll.; San Diego, Calif. (1897)	W. R. Hepner	3,459 C	State
San Francisco, Univ. of; Calif. (1855)	Rev. W. J. Dunne	1,686 M†	Cath.
San Francisco Coll. for Women; Calif. (1921)	Mother L. Mejia	425 F	Cath.
San Francisco St. Coll.; Calif. (1899)	J. P. Leonard	4,057 C	State
San Jose St. Coll.; San Jose, Calif. (1857)	T. W. MacQuarrie	7,041 C*	State
San Rafael, Dominican Coll. of; Calif. (1890)	Sister M. Patrick	303 F†	Cath.
Santa Clara, Univ. of; Calif. (1851)	Rev. W. C. Gianera	1,127 M	Cath.
Sarah Lawrence Coll.; Bronxville, N. Y. (1926)	Harold Taylor	362 F†	Priv.
Scarritt Coll. for Christian Workers; Nashville, Tenn. (1892)	H. C. Stuntz	57 C	Meth.
Scranton, Univ. of; Pa. (1888)	J. E. Gallery	2,377 M†	Cath.
Scripps Coll.; Claremont, Calif. (1926)	Frederick Hard	232 F	Priv.
Seattle Pacific Coll.; Seattle, Wash. (1891)	C. H Watson	693 C	Meth.
Seattle Univ.; Wash. (1898)	V. Rev. A. A. Lemieux	1,875 C	Cath.
Seneca, Colleges of the; Geneva, N. Y.[9]	A. W. Brown	1,052 Co	Priv.
Seton Hall Univ.; South Orange, N. J. (1856)	Msgr. J. L. McNulty	7,225 M†	Cath.
Seton Hill Coll.; Greensburg, Pa. (1883)	Rev. W. G. Ryan	400 F	Cath.
Shaw Univ.; Raleigh, N. C. (1865)	W. R. Strassner	785 C	Priv.
Shepherd Coll.; Shepherdstown, W. Va. (1871)	O. S. Ikenberry	425 C	State
Shorter Coll.; Rome, Ga. (1873)	C. W. Burts	193 F†	Bapt.
Siena Heights Coll.; Adrian, Mich. (1919)	Mother M. Gerald	403 F	Cath.
Simmons Coll.; Boston, Mass. (1899)	Bancroft Beatley	1,524 F†	Priv.
Simpson Coll.; Indianola, Iowa (1860)	E. E. Voigt	511 C	Meth.
Skidmore, Coll.; Saratoga Springs, N. Y. (1911)	H. T. Moore	1,037 F†	Priv.

Institution, location and (date founded)	Chief executive	No. of students	Control
Smith Coll.; Northampton, Mass. (1871)	B. F. Wright	2,258 F	Priv.
South, Univ. of the; Sewanee, Tenn. (1858)	Boylston Green	40[7] M	Epis.
South Carolina, Univ. of; Columbia (1801)	N. M. Smith	2,86[7] C	State
South Carolina, A and M Coll. of; Orangeburg (1896)	B. C. Turner	1,1[7]4 C	State
South Dakota, Univ. of; Vermillion (1882)	I. D. Weeks	1,650 C	State
South Dakota School of Mines & Tech.; Rapid City (1885)	W. E. Wilson	423 C	State
South Dakota St. Coll. of A & M Arts; Brookings (1881)	H. M. Crothers	1,859 C	State
Southeast Missouri St. Coll.; Cape Girardeau (1873)	W. W. Parker	1,041 C	State
Southeastern Louisiana Coll.; Hammond (1925)	G. J. Tinsley	955 C	State
Southeastern St. Coll.; Durant, Okla. (1909)*	T. T. Montgomery	863 C	State
Southern California, Univ. of; Los Angeles (1880)	F. D. Fagg, Jr.	12,153 C	Priv.
Southern Illinois Univ.; Carbondale (1869)	D. W. Morris	2,063 C	State
Southern Methodist Univ.; Dallas, Texas (1911)	Umphrey Lee	4,893 C	Meth.
Southern Oregon Coll. of Ed.; Ashland (1926)	E. N. Stevenson	755 C	State
Southern St. Teach. Coll.; Springfield, S. Dak. (1881)	J. H. Kramer	212 C	State
Southern Univ. & A & M Coll.; Baton Rouge, La. (1880)	E. G. Clark	2,107 C	State
Southwest Missouri St. Coll.; Springfield (1906)	Roy Ellis	1,668 C	State
Southwest Texas St. Teach. Coll.; San Marcos (1899)	J. G. Flowers	1,746 C	State
Southwestern at Memphis; Tenn. (1848)	P. N. Rhodes	473 C	Presb.
Southwestern Coll.; Winfield, Kansas (1885)	A. W. Murray	475 C	Meth.
Southwestern Louisiana Inst.; Lafayette (1898)	J. L. Fletcher	2,186 C	State
Southwestern St. Coll.; Weatherford, Okla. (1903)	R. H. Burton	593 C	State
Southwestern Univ.; Georgetown, Texas (1840)	W. C. Finch	495 C	Meth.
Spelman Coll.; Atlanta, Ga. (1881)	Florence M. Read	361 F	Priv.
Spring Hill Coll.; Spring Hill, Ala. (1830)	V. Rev. W. P. Donnelly	680 M	Cath.
Springfield Coll.; Springfield, Mass. (1885)	P. M. Limbert	1,190 C	Priv.
Stanford Univ.; Stanford, Calif. (1885)	J. E. W. Sterling	7,174 C	Priv.
Stephen F. Austin St. Coll.; Nacogdoches, Texas (1923)	P. L. Boynton	1,468 C	State
Stetson Univ.; DeLand, Fla. (1883)	J. O. Edmunds	1,416 C*	Bapt.
Stevens Inst. of Tech.; Hoboken, N. J. (1870)	J. H. Davis	1,674 M	Priv.
Stout Inst.; Menomonie, Wis. (1903)	V. C. Fryklund	754 C	State
Stowe Teach. Coll.; St. Louis, Mo. (1890)	Ruth M. Harris	30 C	City
Sul Ross St. Coll.; Alpine, Texas (1920)*	R. M. Hawkins	891 C	State
Susquehanna Univ.; Selinsgrove, Pa. (1858)	G. M. Smith	415 C	Luth.
Swarthmore Coll.; Swarthmore, Pa. (1864)	J. W. Nason	891 C	Friends
Sweet Briar Coll.; Sweet Briar, Va. (1901)	Anne G. Pannell	442 F	Priv.
Syracuse Univ.; Syracuse, N. Y. (1870)	W. P. Tolley	15,287 C	Priv.
Talladega Coll.; Talladega, Ala. (1867)	A. D. Beittel	302 C	Cong.
Tarkio Coll.; Tarkio, Mo. (1883)	C. H. Canfield	218 C	Presb.
Taylor Univ.; Upland, Ind. (1846)*	C. W. Meredith	562 C	Priv.
Temple Univ.; Philadelphia, Pa. (1884)	R. L. Johnson	10,900 C	Priv.
Tennessee, Univ. of; Knoxville (1794)	C. E. Brehm	13,686 C	State
Tennessee A & Ind. St. Univ.; Nashville (1912)	W. S. Davis	1,788 C	State
Tennessee Polytechnic Inst.; Cookeville (1915)	Everett Derryberry	1,616 C	State
Texas, A & M Coll. of; College Station (1876)	M. T. Harrington	5,951 M	State
Texas, Univ. of; Austin (1881)	J. P. Hart	12,837 C	State
Texas Christian Univ.; Fort Worth (1873)	M. E. Sadler	3,725 C	D. of C.
Texas Coll. of Arts & Ind.; Kingsville (1925)	E. H. Poteet	1,574 C	State
Texas Southern Univ.; Houston (1947)	R. O'H. Lanier	1,267 C	State
Texas St. Coll. for Women; Denton (1903)	J. A. Guinn	1,983 F	State
Texas Tech. Coll.; Lubbock (1925)	D. M. Wiggins	4,660 C	State
Texas Wesleyan Coll.; Fort Worth (1891)	Law Sone	872 C	Meth.
Texas Western Coll.; El Paso (1913)	W. H. Elkins	2,010 C	State
Thiel Coll.; Greenville, Pa. (1866)	W. F. Zimmerman	493 C	Luth.
Tillotson Coll.; Austin (1877)	W. H. Jones	704 C	Cong.
Toledo, Univ. of; Ohio (1872)	A. S. Knowles	2,052 C	City
Tougaloo Coll.; Tougaloo, Miss. (1871)	H. C. Warren	61 C	AMA
Transylvania Coll.; Lexington, Ky. (1780)	F. A. Rose	268 C	Priv.
Trinity Coll.; Hartford, Conn. (1823)	G. K. Funston	851 M	Priv.
Trinity Coll.; Washington, D. C. (1897)	Sister C. Dorothea	492 F	Cath.
Trinity Univ.; San Antonio, Texas (1869)	Bruce Thomas	1,521 C	Presb.
Tufts Coll.; Medford, Mass. (1852)	Leonard Carmichael	3,409 Co[10]	Priv.
Tulane Univ.; New Orleans, La. (1834)	R. C. Harris	4,168 Co[11]	Priv.
Tulsa, Univ. of; Okla. (1894)	C. I. Pontius	2,399 C	Priv.
Tusculum Coll.; Greeneville, Tenn. (1794)	R. C. Rankin	246 C	Priv.
Tuskegee Inst.; Tuskegee Inst., Ala. (1881)	F. D. Patterson	1,943 C	Priv.
Union Coll.; Barbourville, Ky. (1879)	Conway Boatman	476 C	Meth.
Union Coll.; Lincoln, Nebr. (1891)	H. C. Hartman	797 C	Advent.
Union Coll. & Univ.; Schenectady & Albany (1795)	Carter Davidson	1,029 M	Priv.
Union Univ.; Jackson, Tenn. (1834)	W. F. Jones	372 C	Bapt.

Institution, location and (date founded)	Chief executive	No. of students	Control
U. S. Coast Guard Academy; New London, Conn. (1876)	Adm. A. G. Hall	521 M	Govt.
U. S. Merchant Marine Academy; Kings Pt., N. Y. (1938)	Adm. G. McLintock	900 M	Govt.
U. S. Military Academy; West Pt., N. Y. (1802)	Gen. F. A. Irving	2,398 M	Govt.
U. S. Naval Academy; Annapolis, Md. (1845)	Adm. H. W. Hill	3,800 M	Govt.
Upsala Coll.; East Orange, N. J. (1893)	E. B. Lawson	1,084 C	Luth.
Ursinus Coll.; Collegevill ., Pa. (1869)	N. E. McClure	800 C	Ev. & Ref.
Ursuline Coll. for Women; Cleveland, Ohio (1371)	Mthr. M C. Ahearn	231 F	Cath.
Utah, Univ. of; Salt Lake City (1850)	A. R. Olpin	6,790 C	State
Utah St. Ag. Coll.; Logan (1888)	L. L. Madsen	3,029 C	State
Valdosta St. Coll.; Valdosta, Ga. (1906)	J. R. Thaxton	347 C	State
Valparaiso Univ.; Valparaiso, Ind. (1859)	O. P. Kretzmann	1,567 C	Luth.
Vanderbilt Univ.; Nashville, Tenn. (1872)	Harvie Branscomb	2,974 C	Priv.
Vassar Coll ; Poughkeepsie, N. Y. (1861)	Sarah G. Blanding	1,370 F	Priv.
Vermont, Univ. of; Burlington (1791)	W. S. Carlson	2,785 C	State & Priv.
Villa Maria Coll.; Erie, Pa. (1925)	Sister M. Doloretta	301 F	Cath.
Villanova Coll.; Villanova, Pa. (1842)	Rev. F. X. N. McGuire	2,085 M	Priv.
Virginia, Univ. of; Charlottesville (1819)	C. W. Darden	4,072 Co[12]	State
Virginia Military Inst.; Lexington (1839)	R. J. Marshall	760 M	State
Virginia Polytechnic Inst.; Blacksburg (1872)	W. S. Newman	3,314 C[13]	State
Virginia St. Coll.; Petersburg (1882)	R. P. Daniel	2,285 C	State
Virginia Union Univ.; Richmond (1865)	J. M. Ellison	987 C	Bapt.
Wabash Coll.; Crawfordsville, Ind. (1834)	F. H. Sparks	474 M	Priv.
Wagner Coll.; Staten Island, N. Y. (1885)	W. C. Langsam	798 C	Luth.
Wake Forest Coll.; Wake Forest, N. C. (1834)	H. W. Tribble	1,457 C	Bapt.
Walla Walla Coll.; College Place, Wash. (1892)	G. W. Bowers	1,280 C	Advent.
Wartburg Coll.; Waverly, Iowa (1852)	C. H. Becker	553 C	Luth.
Washburn Municipal Univ.; Topeka, Kans. (1865)	B. S. Stoffer	1,347 C	City
Washington, St. Coll. of; Pullman (1890)	Wilson Compton	4,938 C	State
Washington, Univ. of; Seattle (1861)	R. B. Allen	13,153 C	State
Washington & Jefferson Coll.; Washington, Pa. (1787)	B. C. Patterson	578 M	Priv.
Washington & Lee Univ.; Lexington, Va. (1749)	F. P. Gaines	1,039 M	Priv.
Washington Coll.; Chestertown, Md. (1782)	D. Z. Gibson	336 C	Priv.
Washington Missionary Coll.; Washington, D. C. (1904)	W. H. Shephard	511 C	Advent.
Washington Univ.; St. Louis, Mo. (1853)	A. H. Compton	5,329 C	Priv.
Wayne Univ.; Detroit, Mich. (1868)	D. D. Henry	7,464 C	City
Wellesley Coll.; Wellesley, Mass. (1870)	Margaret Clapp	1,641 F	Priv.
Wells Coll.; Aurora, N. Y. (1868)	L. J. Long	298 F	Priv.
Wesleyan Coll.; Macon, Ga. (1836)	Silas Johnson	542 F†	Meth.
Wesleyan Univ.; Middletown, Conn. (1831)	V. L. Butterfield	892 M	Priv.
West Liberty St. Coll.; W. Liberty, W. Va. (1837)	P. N. Elbin	508 C	State
West Texas St. Coll.; Canyon (1910)	J. P. Cornette	1,036 C	State
West Virginia St. Coll.; Institute (1891)	J. W. Davis	1,214 C	State
West Virginia Univ.; Morgantown (1867)	Irvin Stewart	4,172 C	State
West Virginia Wesleyan Coll.; Buckhannon (1890)	W. J. Scarborough	645 C	Meth.
Western Carolina Teach. Coll.; Cullowhee, N. C. (1889)	P. A. Reid	462 C	State
Western Coll. for Women; Oxford, Ohio (1853)	E. H. Kase, Jr.	286 F	Priv.
Western Illinois St. Coll.; Macomb (1899)	F. A. Beu	1,562 C	State
Western Kentucky St. Coll.; Bowling Green (1906)	P. L. Garrett	1,728 C	State
Western Maryland Coll.; Westminster (1867)	L. S. Ensor	802 C	Priv.
Western Michigan Coll.; Kalamazoo (1903)	P. V. Sangren	4,000 C	State
Western Montana Coll. of Ed.; Dillon (1897)	Rush Jordan	221 C	State
Western Reserve Univ.; Cleveland, Ohio (1826)	J. S. Millis	4,275 Co	Priv.
Western St. Coll.; Gunnison, Colo. (1901)	P. P. Mickelson	660 C	State
Western Washington Coll. of Ed.; Bellingham (1899)	W. W. Haggard	1,219 C	State
Westminster Coll.; Fulton, Mo. (1851)	W. W. Hall, Jr.	345 M	Presb.
Westminster Coll.; New Wilmington, Pa. (1852)	W. W. Orr	865 C	Presb.
Westminster Coll.; Salt Lake City, Utah (1875)	R. D. Steele	341 C	Presb.
Wheaton Coll.; Norton, Mass. (1834)	A. H. Meneely	540 F	Priv.
Wheaton Coll.; Wheaton, Ill. (1860)	V. R. Edman	1,527 C	Priv.
Wheelock Coll ; Boston, Mass. (1889)	Winifred E. Bain	380 F	Priv.
Whitman Coll.; Walla Walla, Wash. (1859)	C. C. Maxey	715 C	Priv.
Whittier Coll.; Whittier, Calif. (1901)	P. S. Smith	1,110 C	Priv.
Whitworth Coll.; Spokane, Wash. (1890)	F. F. Warren	723 C	Presb.
Wichita, Municipal Univ. of; Kansas (1896)	H. F. Corbin	2,648 C	City
Wiley Coll.; Marshall, Texas (1873)	J. S. Scott, Sr.	612 C	Meth.
Wilkes Coll.; Wilkes-Barre, Pa. (1933)	E. S. Farley	570 C	Priv.
Willamette Univ.; Salem, Oreg. (1842)	G. H. Smith	985 C	Priv.
William & Mary, Coll. of; Williamsburg, Va. (1693)	A. D. Chandler	1,603 C	State
William Jewell Coll.; Liberty, Mo. (1849)	W. P. Binns	541 C	Bapt.

Institution, location and (date founded)	Chief executive	No. of students	Control
Williams Coll.; Williamstown, Mass. (1793)	J. P. Baxter, III	1,021 M	Priv
Wilmington Coll.; Wilmington, Ohio (1875)	S. D. Marble	440 C	Friends
Wilson Coll.; Chambersburg, Pa. (1869)	P. S. Havens	372 F	Priv.
Wilson Teach. Coll.; Washington, D. C. (1873)	W. E. Hager	367 C	City
Winthrop Coll.; Rock Hill, S. C. (1886)	H. R. Sims	1,260 F	State
Wisconsin, Univ. of; Madison (1848)	E. B. Fred	16,462 C	State
Wisconsin St. Coll.; Eau Claire (1915)	W. R. Davies	730 C	State
Wisconsin St. Coll.; La Crosse (1909)	R. S. Mitchell	894 C	State
Wisconsin St. Coll.; Milwaukee (1880)	J. M. Klotsche	1,640 C	State
Wisconsin St. Coll.; Oshkosh (1871)	F. R. Polk	518 C	State
Wisconsin St. Coll.; Platteville (1866)	C. O. Newlun	588 C	State
Wisconsin St. Coll.; River Falls (1874)	E. H. Kleinpell	652 C	State
Wisconsin St. Coll.; Stevens Pt. (1894)	W. C. Hansen	693 C	State
Wisconsin St. Coll.; Superior (1893)	J. D. Hill	866 C	State
Wisconsin St. Coll.; Whitewater (1868)	R. C. Williams	682 C	State
Wittenberg Coll.; Springfield, Ohio (1845)	C. C. Stoughton	978 C	Luth.
Wofford Coll.; Spartanburg, S. C. (1854)	W. K. Greene	520 M	Meth.
Woodstock Coll.; Woodstock College, Md. (1867)	Rev. J. F. Murphy	250 M	Cath.
Wooster, Coll. of; Wooster, Ohio (1866)	H. F. Lowry	1,204 C	Presb.
Worcester Poly. Inst.; Worcester, Mass. (1865)	W. T. Cluverius	713 M	Priv.
Wyoming, Univ. of; Laramie (1887)	G. D. Humphrey	2,251 C	State
Xavier Univ.; Cincinnati, Ohio (1831)	Rev. J. F. Maguire	1,250 M	Cath.
Xavier Univ.; New Orleans, La. (1925)	Mother M. Agatha	1,030 C	Cath.
Yale Univ.; New Haven, Conn. (1701)	A. W. Griswold	8,444 M†	Priv.
Yankton Coll.; Yankton, S. Dak. (1881)	J. C. Graham	291 C	Cong.
Yeshiva Univ.; New York, N. Y. (1884)	Samuel Belkin	1,800 M	Priv.
Youngstown Coll.; Youngstown, Ohio (1908)	H. W. Jones	1,839 C	Priv.

[1] Graduate school only; for undergraduate information, see constituent colleges: Clark College, Morehouse College and Spelman College. [2] Pembroke College is the constituent school for women. [3] Other campuses at Davis, La Jolla, Los Angeles, Mt. Hamilton, Riverside, Santa Barbara and San Francisco. [4] Graduate school only; see also associated colleges: Pomona College, Scripps College and Claremont Men's College. [5] Columbia College is for men only; Barnard College is for women only. [6] Fordham College is for men only. [7] The Liberal Arts College is restricted to men only. [8] Rutgers College is for men only; New Jersey College for Women is for women only; Newark Colleges are coeducational. [9] Includes Hobart College (1822) for men and William Smith College (1908) for women. [10] Jackson College is the constituent school for women. [11] Newcomb College is the constituent school for women. [12] Mary Washington College of Fredericksburg is the constituent school for women. [13] Radford College at Radford is the constituent school for women. [14] Affiliated with Harvard University.

Institutions of higher education reporting $20,000,000 or more in endowment and other non-expendable funds, 1950.

Harvard University	Cambridge, Massachusetts	$201,775,433
Yale University	New Haven, Connecticut	127,392,152
Columbia University	New York, New York	100,707,278
University of Texas	Austin, Texas	82,637,322
University of Chicago	Chicago, Illinois	77,863,256
Northwestern University	Evanston, Illinois	60,900,559
University of Rochester	Rochester, New York	60,473,402
Duke University	Durham, North Carolina	58,280,050
University of California	Berkeley, California	54,916,786
Massachusetts Inst. of Technology	Cambridge, Massachusetts	51,603,652
Princeton University	Princeton, New Jersey	49,818,878
Cornell University	Ithaca, New York	44,949,027
University of Minnesota	Minneapolis, Minnesota	38,544,466
A and M College of Texas	College Station, Texas	38,497,838
Stanford University	Stanford University, Calif.	36,910,578
Johns Hopkins University	Baltimore, Maryland	36,125,751
Rice Institute	Houston, Texas	31,598,354
Vanderbilt University	Nashville, Tennessee	31,555,082
University of Pennsylvania	Philadelphia, Pennsylvania	31,453,798
Washington University	St. Louis, Missouri	31,012,675
Carnegie Inst. of Technology	Pittsburgh, Pennsylvania	29,448,854
Dartmouth College	Hanover, New Hampshire	27,156,681
California Inst. of Technology	Pasadena, California	24,093,641
Oberlin College	Oberlin, Ohio	23,961,593
Emory University	Emory University, Georgia	22,237,612

Leading Daily U. S. Newspapers

Source: A.B.C. Publishers' statements for 6-month period ending March 31, 1951.

(NOTE: This table lists all newspapers with a total daily circulation of 100,000 or greater. Where two or more newspapers are listed under a city, the order is according to size of total daily circulation.)

City and newspaper	Net Paid Circulation		
	Morning[1]	Evening[1]	Sunday
Akron (Ohio): BEACON JOURNAL	.....	145,875	152,011
Atlanta: CONSTITUTION (M); JOURNAL (E); JOURNAL & CONSTITUTION (S)	174,239	254,437	457,147
Baltimore: SUN	176,653	198,104	313,618
NEWS-POST (E); AMERICAN (S)	.....	225,913	342,383
Birmingham: POST-HERALD (M); NEWS (E & S)	87,526	180,264	216,683
Boston: RECORD (M); AMERICAN (E), ADVERTISER (S)	377,320[2]	187,321[2]	642,280
HERALD (M & S); TRAVELER (E)	128,367[2]	212,871[2]	254,901
POST	295,165[2]	.....	248,508
GLOBE	122,653[2]	158,740[2]	386,993
CHRISTIAN SCIENCE MONITOR	.....	173,540	.....
Buffalo: NEWS	.....	285,798	.....
COURIER-EXPRESS	143,436	.....	294,291
Charlotte (N. C.): OBSERVER	138,778	.....	146,840
Chicago: TRIBUNE	917,068	.....	1,522,904
SUN-TIMES	607,847[2,3]	.....	644,215
HERALD-AMERICAN	.....	556,463	981,221
NEWS	.....	553,597	.....
Cincinnati: ENQUIRER	185,352	.....	273,804
POST	.....	152,283	.....
TIMES-STAR	.....	152,040	.....
Cleveland: NEWS	.....	145,420	.....
PRESS	.....	304,104	.....
PLAIN DEALER	298,833	.....	528,166
Columbus (Ohio): DISPATCH	.....	159,433	221,364
Dallas: NEWS	172,670	.....	186,430
TIMES HERALD	.....	145,074	144,030
Dayton (Ohio): NEWS	.....	129,950	159,261
Denver: POST	.....	230,755	362,645
ROCKY MOUNTAIN NEWS	138,433	.....	148,498
Des Moines: REGISTER (M & S); TRIBUNE (E)	223,659	150,644	540,836
Detroit: NEWS	.....	464,940	571,757
TIMES	.....	437,186	614,506
FREE PRESS	436,675	.....	477,119
Evansville (Ind.): COURIER (M), PRESS (E); COURIER & PRESS (S)	59,014	45,823	85,926
Fort Wayne: JOURNAL-GAZETTE (M & S); NEWS-SENTINEL (E)	63,101	80 363	87,278
Fort Worth: STAR-TELEGRAM	116,309	120,254	215,890
Grand Rapids: PRESS	.....	108,493	.....
Greensboro (N. C.): NEWS (M & S): RECORD (E)	78,052	22,399	85,075
Harrisburg (Pa.): PATRIOT (M); NEWS (E); PATRIOT-NEWS (S)	31,760	84,995	73,459
Hartford (Conn.): TIMES	.....	100,138	.....
Hempstead (N. Y.): NEWSDAY	.....	131,314	.....
Houston: CHRONICLE	.....	183,261	201,168
POST	176,711	.....	192,580
PRESS	.....	109,191	.....
Indianapolis: STAR	191,637	.....	278,591
NEWS	.....	159,902	.....
TIMES	.....	102,634	102,195
Jacksonville (Fla.): TIMES-UNION	130,441	.....	139,270
Kansas City (Mo.): TIMES (M); STAR (E & S)	353,836	363,127	378,184
Knoxville (Tenn.): NEWS-SENTINEL	.....	107,080	112,699
Los Angeles: TIMES	396,959	.....	775,748
EXAMINER	352,942	.....	780 064
HERALD & EXPRESS	.....	340,781[2]	.....
DAILY NEWS	.....	224,239[2]	.....
MIRROR	.....	187,980[2]	.....
Louisville: COURIER-JOURNAL (M & S); TIMES (E)	195,577	172,742	232,725
Memphis: COMMERCIAL APPEAL (M & S); PRESS SCIMITAR (E)	197,682	135,595	246,701
Miami: HERALD	208,340	.....	239,575
NEWS	.....	114,331	95,405

[1] Unless otherwise indicated, figure is an average of the Monday-through-Saturday circulation. [2] Figure is an average of the Monday-through-Friday circulation; i.e., Saturday circulation, if any, has not been used in making the average. [3] Published all day.

City and newspaper	Net Paid Circulation		
	Morning[1]	Evening[1]	Sunday
Milwaukee: JOURNAL	.....	330,928	449,834
SENTINEL	176,039	.....	295,770
Minneapolis: STAR (E); TRIBUNE (M & S)	187,060	296,213	615,045
Mobile: REGISTER (M); PRESS (E); PRESS REGISTER (S)	35,727	64,278	82,848
Nashville: TENNESSEAN	105,755	.....	168,389
New York: NEWS	2,197,510[2]	.....	4,113,542
MIRROR	972,332[2]	.....	1,957,708
JOURNAL & AMERICAN	.....	732,359[2]	1,106,508
WORLD-TELEGRAM & SUN	.....	578,376[2]	.....
TIMES	524,086[2]	.....	1,146,807
POST	.....	391,612[2]	276,947
HERALD TRIBUNE	355,743[2]	.....	635,135
LONG ISLAND PRESS	.....	165,356	193,962
BROOKLYN EAGLE	.....	125,783[2]	152,605
WALL STREET JOURNAL (Eastern Edition)	125,544	.....	.....
New Orleans: TIMES-PICAYUNE (M); STATES (E); TIMES-PICAYUNE-STATES (S)	180,046	99,179[2]	283,624
ITEM	.....	106,680[2]	111,682
Newark (N. J.): NEWS	.....	260,692[2]	237,382
STAR-LEDGER	173,865	.....	263,598
Norfolk: VIRGINIAN-PILOT (M & S); LEDGER-DISPATCH (E)	95,742	57,109	103,435
Oakland (Calif.): TRIBUNE	.....	189,821	195,493
Oklahoma City: OKLAHOMAN (M & S); TIMES (E)	146,901	116,278	260,398
Omaha: WORLD-HERALD	131,308	118,319	254,966
Peoria (Ill.): STAR (M); JOURNAL (E); JOURNAL-STAR (S)	32,565	69,537	92,030
Phoenix: REPUBLIC (M & S); GAZETTE (E)	75,673	52,192	98,112
Philadelphia: BULLETIN	.....	711,396[2]	689,338
INQUIRER	648,098[2]	.....	1,143,421
NEWS	.....	129,699	.....
Pittsburgh: PRESS	.....	281,393	502,578
POST-GAZETTE	265,572	.....	.....
SUN-TELEGRAPH	.....	197,145	550,685
Portland (Oreg.): OREGONIAN	230,801	.....	285,026
JOURNAL	.....	195,936[2]	209,902
Providence: BULLETIN	.....	142,905	.....
Raleigh (N. C.): NEWS & OBSERVER	113,618	.....	117,407
Richmond: TIMES-DISPATCH (M & S); NEWS-LEADER (E)	126,157	102,169	172,774
Rochester: DEMOCRAT & CHRONICLE (M & S); TIMES-UNION (E)	111,102	112,670	167,818
Sacramento: BEE	.....	121,095	.....
St. Louis: POST-DISPATCH	.....	290,052[2]	450,138
GLOBE-DEMOCRAT	282,611[2]	.....	364,022
STAR-TIMES	.....	179,803[2]	.....
St. Paul: PIONEER PRESS (M & S); DISPATCH (E)	93,958	120,203	161,231
Salt Lake City: TRIBUNE (M & S); TELEGRAM (E)	91,270	36,901	126,529
San Diego: EVENING TRIBUNE	.....	108,551	.....
San Francisco: EXAMINER	228,200	.....	585,109
CALL-BULLETIN	.....	161,754[2]	.....
CHRONICLE	152,672	.....	270,702
NEWS	.....	125,549	.....
Seattle: TIMES	.....	217,425[2]	243,750
POST-INTELLIGENCER	182,951	.....	263,944
South Bend (Ind.): TRIBUNE	.....	104,811	104,038
Syracuse: HERALD-JOURNAL (E); HERALD-AMERICAN (S)	.....	128,854	222,892
Tampa (Fla.): TRIBUNE	112,522	.....	126,083
Toledo: BLADE	.....	189,412	155 704
Tulsa: WORLD (M & S); TRIBUNE (E)	78,384	69,064	136,627
Washington, D. C.: TIMES HERALD	265,683[2, 3]	.....	303,540
EVENING STAR; SUNDAY STAR	.....	228,774[2]	255 979
POST	190,767[2]	.....	198,630
NEWS	.....	135,061[2]	.....
Wichita (Kans.): EAGLE	78,398	60,451	92,007
BEACON	.....	106,088	134,485
Worcester (Mass.): TELEGRAM (M & S); GAZETTE (E)	51,501	101,396	105,012

English Language Daily and Sunday U. S. Newspapers

(as of Sept. 30, 1950)

Source: Editor & Publisher.

State	Morning papers	& circulation	Evening papers	& circulation	Total M & E	& circulation	Sunday papers	& circulation
Alabama	4	183,804	15	386,735	19	570,539	14	487,853
Arizona	5	96,220	8	88,145	13	184,365	4	125,491
Arkansas	5	138,465	29	201,186	34	339,651	9	284,040
California	21	1,444,669	98	2,487,574	119	3,932,243	23	3,183,676
Colorado	4	153,731	23	359,662	27	513,393	8	586,413
Connecticut	6	154,056	20	478,655	26	632,711	7	430,397
Delaware	1	21,549	2	60,668	3	82,217	1	20,574
D. C.	2	327,818	3	497,513	5	825,331	3	748,084
Florida	10	536,916	26	418,825	36	955,741	24	799,771
Georgia	5	307,278	24	452,083	29	759,361	11	675,917
Idaho	4	59,923	11	70,897	15	130,820	5	92,400
Illinois	9	1,442,490	78	2,339,390	87	3,781,880	18	3,638,622
Indiana	12	428,178	78	1,092,757	90	1,520,935	17	865,795
Iowa	2	281,030	41	647,364	43	928,394	7	792,729
Kansas	4	170,603	51	467,783	55	638,386	13	432,168
Kentucky	8	273,853	25	380,344	33	654,197	15	486,415
Louisiana	6	289,389	15	373,822	21	663,211	11	551,814
Maine	5	172,517	5	77,432	10	249,949	3	176,895
Maryland	4	205,408	8	494,984	12	700,392	3	682,545
Massachusetts	7	1,118,849	46	1,490,566	53	2,609,415	11	1,851,342
Michigan	2	507,448	52	1,750,545	54	2,257,993	12	2,052,753
Minnesota	4	336,691	26	641,835	30	978,526	5	849,004
Mississippi	5	65,291	15	163,193	20	228,484	10	156,965
Missouri	8	756,595	50	1,118,290	58	1,874,885	11	1,353,171
Montana	5	86,283	12	61,143	17	147,426	9	133,500
Nebraska	4	178,269	18	272,849	22	451,118	6	332,047
Nevada	1	10,511	6	35,629	7	46,140	2	26,449
New Hampshire	1	24,493	8	79,215	9	103,708	1	31,143
New Jersey	6	307,791	22	828,430	28	1,136,221	8	597,560
New Mexico	1	31,176	14	94,158	15	125,334	8	82,569
New York	24	4,987,174	70	3,647,360	94	8,634,534	23	10,695,049
North Carolina	8	454,903	36	446,069	44	900,972	15	586,188
North Dakota	3	54,700	9	86,329	12	141,029	2	79,816
Ohio	8	726,518	89	2,380,629	97	3,107,147	18	1,929,882
Oklahoma	8	276,332	44	398,950	52	675,282	40	624,941
Oregon	4	250,350	18	338,259	22	588,609	7	555,930
Pennsylvania	27	1,400,358	101	2,653,560	128	4,053,918	15	3,308,251
Rhode Island	1	46,046	6	224,920	7	270,966	2	180,203
South Carolina	7	249,182	9	129,893	16	379,075	6	270,917
South Dakota	1	2,587	11	144,996	12	147,583	6	104,808
Tennessee	8	459,547	22	510,900	30	970,447	12	781,557
Texas	24	965,611	90	1,451,953	114	2,417,564	77	2,113,172
Utah	1	93,339	5	168,725	6	262,064	4	249,436
Vermont	2	44,804	8	43,532	10	88,336	1	11,682
Virginia	10	343,646	23	375,112	33	718,758	13	495,825
Washington	7	300,363	19	569,039	26	869,402	10	782,212
West Virginia	9	238,298	21	265,975	30	504,273	9	390,041
Wisconsin	3	229,748	36	732,698	39	1,012,446	6	860,308
Wyoming	6	31,326	4	32,375	10	63,701	4	34,028
Total U. S.	322	21,266,126	1,450	32,562,946	1,772	53,829,072	549	46,582,348
Total U. S., Oct. 1, 1949	329	21,004,650	1,451	31,840,901	1,780	52,845,551	546	46,398,968
Total U. S., Oct. 1, 1948	328	21,081,905	1,453	31,203,392	1,781	52,285,297	530	46,308,081
Total U. S., Oct. 1, 1947	328	20,762,317	1,441	30,910,959	1,769	51,673,276	511	45,151,319
Total U. S., Oct. 1, 1946	334	20,545,908	1,429	30,381,597	1,763	50,927,505	497	43,665,364
Total U. S., Oct. 1, 1945	330	19,239,913	1,419	29,144,275	1,749	48,384,188	485	39,860,036
Total U. S., Oct. 1, 1933	333	17,077,722	1,421	27,315,107	1,754	44,392,829	467	37,291,832

The Leading Magazines of the United States

Source: A.B.C. Publishers' Statements for period ending June 30, 1951.

Magazine	Circulation*	Magazine	Circulation*
American Comic Group	2,862,137	Marvel Comic Group	11,057,832
American Home	2,813,704	Modern Screen	1,215,811
American Legion Magazine	2,977,316	National Comics Group	7,906,688
American Magazine	2,551,008	National Geographic Magazine	2,010,824
Archie Comic Group	3,569,927	Parents Magazine	1,249,054
Better Homes & Gardens	3,563,856	Pathfinder	1,205,321
Collier's	3,150,444	Photoplay	1,200,730
Coronet	2,642,836	Popular Mechanics	1,171,904
Cosmopolitan	2,000,246	Popular Science	1,152,786
Dell Modern Group	2,719,299	Quality Comic Group	1,286,669
Family Circle	2,846,430	Reader's Digest	†
Fawcett Comics Group	3,570,493	Redbook Magazine	1,993,013
Fawcett Screen Unit	1,148,572	Saturday Evening Post	3,994,969
Fawcett Women's Group	2,859,863	Screenland Unit	1,018,043
Foreign Service	1,013,149	Seventeen	1,026,620
Good Housekeeping	3,081,960	Standard Comics Group	1,929,234
Harvey Comics Group	5,458,861	Thrilling Fiction Group	1,348,135
Hillman Comic Group	1,134,056	Time	1,651,372
Hillman Women's Group	1,287,662	Today's Woman	1,132,846
Household	2,115,531	True	1,479,933
Ideal Women's Group	1,434,254	True Confessions	1,711,291
Ladies' Home Journal	4,458,219	True Story	2,093,979
Lev Gleason Comic Group	2,715,608	True Story Women's Group	5,068,968
Life	5,301,331	Woman's Day	3,866,062
Look	3,260,927	Woman's Home Companion	3,992,005
McCall's Magazine	4,011,643	Young Romance Group	2,251,609

* Net paid circulation. † The publisher's figure is over 8,500,000; since the magazine does not take advertising, A.B.C. does not publish the circulation. NOTE: Does not include farm magazines.

Radio Stations and Networks

Source: National Association of Radio and Television Broadcasters.

Major networks	Standard Broadcast stations (Aug. 1, 1951) Owned and operated	Affiliated
ABC—American Broadcasting Company	5	290
CBS—Columbia Broadcasting System	7	184
MBS—Mutual Broadcasting System	0	552
NBC—National Broadcasting Company	6	168
LBS—Liberty Broadcasting System	0	402

No. of stations* (Aug. 1, 1951)	Operating	Permits for construction	Total
Standard Broadcast	2,287	101	2,388
Television	107†	2	109
FM (Frequency Modulation)	647‡	11	658

* Including territories and possessions. † Includes 81 licensed and 26 CP's operating on special temporary authority. ‡ Includes 1 CA and 104 CP's operating on special temporary authority.

Birthstones

Source: Jewelry Industry Council.

January	Garnet	July	Ruby
February	Amethyst	August	Peridot or Sardonyx
March	Aquamarine or Bloodstone	September	Sapphire
April	Diamond	October	Opal or Tourmaline
May	Emerald	November	Topaz
June	Pearl or Moonstone	December	Turquoise or Lapis Lazuli

Patents

A patent, in the most general sense, is a document issued by a government, conferring some special right or privilege. The term is now restricted mainly to patents for inventions; occasionally, land patents.

The grant of a patent for an invention gives the inventor the privilege, for a limited period of time, of excluding others from practicing a certain art or from making, using, or selling a certain article. However, it does not give him the right to make, use, or sell his own invention if it is an improvement on some unexpired patent whose claims are infringed thereby.

In the U. S., the law provides that a patent may be granted, for a term of 17 years, to any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, as well as any new and useful improvements thereof. A patent may also be granted to any person who has invented or discovered and asexually reproduced any new and distinct variety of plant (other than a tuber-propagated one) or has invented any new, original, and ornamental design for an article of manufacture.

A patent is granted only upon a regularly filed application, complete in all respects; upon payment of the fees; and upon determination that the disclosure is complete and that the invention is new and useful. The disclosure must be of such nature as to enable others to reproduce the invention.

A complete application, which must be addressed to the Commissioner of Patents, Washington, D. C., consists of a petition, specification and claims, oath, drawing (whenever the nature of the case admits of it), and a filing fee of $30 for cases having 20 claims or less. An additional fee of $1 per claim is required for cases having more than 20 claims. The filing fee is not returned to the applicant if the patent is refused. If the patent is allowed, another fee of $30 (and $1 each for claims allowed in excess of 20) is required before the patent is issued. The fees for design patents vary.

Applications are considered strictly in the order in which they are received. Patents are not granted for printed matter, for methods of doing business, or for devices for which claims contrary to natural laws are made. Applications for a perpetual-motion machine have been made from time to time, but until a working model is presented that actually fulfills the claim, no patent will be issued.

Trade-Marks

A trade-mark may be defined as a word, letter, device, or symbol, as well as some combination of these, which is used in connection with merchandise and which points distinctly to the origin or ownership of the article to which it is applied.

Certificates of registration of trade-marks are issued under the seal of the Patent Office and may be registered by the owner if he is engaged in interstate or foreign commerce, since any federal jurisdiction over trade-marks arises under the commerce clause of the Constitution. Trade-marks may be registered by foreign owners who comply with our law, as well as by citizens of foreign countries with which the U. S. has treaties relating to trade-marks. American citizens may register trade-marks in foreign countries by complying with the laws of those countries. The right to registration and protection of trade-marks in many foreign countries is guaranteed by treaties.

General jurisdiction in trade-mark cases is given to the federal courts. Decisions of examiners on applications or oppositions are subject to appeal to the Commissioner of Patents, and from him to the U. S. Court of Customs and Patent Appeals. Before adopting a trade-mark, a person should make a search of prior marks in order to avoid infringing unwittingly upon them.

The duration of a trade-mark registration is 20 years, but it may be renewed indefinitely for 20-year periods, provided the trade-mark is still in use at the time of expiration.

Television Stations and Sets in U. S.

Source: Tele-Tech (Caldwell-Clements, Inc.).

States	Stations, 1951	Sets 1950	Sets 1951	States	Stations, 1951	Sets 1950	Sets 1951
New England	4	295,438	942,000	West North Central	9	141,131	611,500
Middle Atlantic	28	1,988,161	4,530,000	West South Central	8	61,919	390,500
South Atlantic	9	78,936	372,600	Mountain	4	11,296	69,500
East North Central	27	734,734	2,750,000	Pacific	12	354,351	1,156,500
East South Central	6	34,034	194,000	Total U. S.	107	3,700,000	11,000,000

NOTE: Data as of January 1 of each year.

Copyrights

(Covering amendments of the law through June 3, 1949)

A copyright, international or national, is the right obtained by authors, musicians, and artists of all mediums to prevent the reproduction of their works without their consent. The U. S. Constitution (Article I, Section 8) empowers Congress "to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The possession of a copyright prevents reproduction by writing, printing, copying, or imitation of the copyrighted article. Copyright also includes the right to control public performance of dramatic and musical works, to control mechanical reproductions of musical compositions, and to translate and dramatize literary works. Copyright protection extends to such works as books and pamphlets; periodicals and contributions to periodicals; lectures, sermons, and monologues; dramas and dramatical musical compositions; musical compositions; maps; works of art or models and designs for works of art; reproductions of a work of art; drawings or plastic works of scientific or technical character; photographs, prints, and pictorial illustrations; commercial prints and labels; and motion pictures.

The copyright term endures 28 years from the date of receipt in the Copyright Office for unpublished material and from the date of publication for published works. The copyright may be renewed for an additional period of 28 years, provided application for such renewal is made within one year prior to the date of expiration of the original term. The copyright of a book or similar publication is secured by publication of such work after printing on the title page, or the page immediately following, the required copyright notice. This notice consists of the word *Copyright* or the abbreviation *Copr.*, the year of publication, and the name of the copyright owner. It is important to bear in mind that copyright comes into being at the time of first publication if this required notice appears on the work. If publication occurs without this notice, the work falls into the public domain, and the Copyright Office cannot register the claim. In short, the Copyright Office does not grant copyrights; the obtaining of such protection depends on whether or not the claimant follows the statutory formalities at the time of publication.

The law requires that, promptly after the work has been published, two copies thereof must be forwarded to the Register of Copyrights, Library of Congress, Washington 25, D. C. These copies should be accompanied by the proper application form and the statutory fee of $4. If the work is a commercial print or label used in connection with the sale or advertisement of an article of merchandise, the fee is $6.

Effective June 3, 1949, the term of ad interim protection for books and periodicals in the English language first published abroad was extended from six months to five years. Such works of foreign origin may be imported into the U. S. up to a total of 1,500 copies after ad interim registration has been obtained. The above amendment to the law also affords to the foreign author or publishers an option of obtaining registration without payment of the usual statutory fee if an extra copy of the work, accompanied by a catalogue card, is submitted to the Copyright Office within six months of the date of first publication abroad.

Presidential proclamations and treaties cover copyright relations of the U. S. with most of the important countries in the world.

Copies of application forms may be obtained from the Copyright Office free upon request. The Office also publishes, in Bulletin 14, the full U. S. copyright law. This bulletin can be purchased for fifteen cents upon application to the Register of Copyrights.

Radio and Phonograph Statistics for U. S.

Source: Tele-Tech (Caldwell-Clements, Inc.).

Type	Number*	Type	Number*
Radios: Homes with	45,000,000	Turntables: 78 rpm only	15,400,000
Secondary sets in homes	24,000,000	33 rpm only	1,065,000
Sets in business, etc.	4,000,000	45 rpm only	2,450,000
Automobile radios	17,000,000	78 and 33 rpm	400,000
Total radios	90,000,000	3-speed	2,600,000
Radio operators licensed	700,000	Total turntables	21,915,000
Amateur stations	88,000		

* In operation as of Jan. 1, 1951. NOTE: Radio sets in rest of world: North America (except U. S.), 7,000,000; South America, 7,000,000; Europe, 61,500,000; Asia, 12,000,000; Australia, 2,500,000; Africa, 2,000,000; total, 92,000,000. Total sets in world: 182,000,000.

The National Park System of the United States

Source: National Park Service.

The National Park System of the United States, administered by the National Park Service, a bureau of the Department of the Interior, embraces a total of 175 areas, containing approximately 21,720,000 acres in federal ownership. Started with the establishment of Yellowstone National Park in 1872, the system includes not only the most extraordinary and spectacular scenic exhibits in the United States proper and in Alaska and Hawaii but also a large number of sites distinguished for their historic or prehistoric importance or scientific interest. The number and extent of the various types of areas which comprise the system, as of June 30, 1951, are as follows:

Type of area	Number	Federal land (acres)	Lands within exterior boundaries not federally owned (acres)	Total lands within exterior boundaries (acres)
National Parks	28	12,556,699.55	149,243.20	12,705,942.75
National Historical Parks	5	10,404.73	5,843.39	16,248.12
National Monuments	85	8,963,725.42	298,227.97	9,261,953.39
National Military Parks	11	24,260.95	2,583.35	26,844.30
National Memorial Park	1	59,420.56	11,760.47	71,181.03
National Battlefield Parks	2	3,778.65	800.00	4,578.65
National Battlefield Sites	6	188.33	547.65	735.98
National Memorials	10	1,564.94	58.13	1,623.07
National Historic Sites	12	2,941.16	2,503.81	5,444.97
National Cemeteries	10	217.01	5.00	222.01
National Parkways	4	68,594.37	39,225.66	107,820.03
National Capital Park	1	29,223.71	1,500.00	30,723.71
Total	175	21,721,019.38	512,298.63	22,233,318.01

National Parks

Name, location and year established as National Park	Area in U. S. ownership, acres	Outstanding characteristics
Acadia (Maine), 1919	28,619.50	Rugged seashore on Mt. Desert Island and adjacent mainland
Big Bend (Texas), 1944	692,304.70	Mountains and desert bordering the Rio Grande
Bryce Canyon (Utah), 1928	36,010.38	Area of grotesque eroded rocks brilliantly colored
Carlsbad Caverns (N. Mex.), 1930	45,526.59	One of the world's largest known caves; spectacular flight of bats daily, in summer
Crater Lake (Oregon), 1902	160,290.33	Deep blue lake in crater of inactive volcano
Everglades (Florida), 1947	1,228,488.00	Sub-tropical area with abundant bird and animal life
Glacier (Montana), 1910	998,797.31	Rocky mountains with many glaciers and lakes
Grand Canyon (Arizona), 1919	645,295.91	Mile deep gorge, 4 to 18 miles wide, 217 miles long, of which 105 miles are within the park; fantastically sculptured by erosion
Grand Teton (Wyoming), 1929	298,737.85	Picturesque range of high mountain peaks
Great Smoky Mts. (N. C.-Tenn.), 1930	505,166.61	Highest mountain range east of Black Hills; luxuriant plant life
Hawaii (Territory Hawaii), 1916	176,456.60	Spectacular volcanic area with two active volcanoes
Hot Springs (Arkansas), 1921	1,019.13	47 mineral hot springs said to have therapeutic value
Isle Royale (Michigan), 1940	133,838.51	Largest wilderness island in Lake Superior; great moose herd
Kings Canyon (California), 1940	453,064.82	Huge canyons; high mountains; giant sequoias
Lassen Volcanic (California), 1916	103,509.28	Only recently active volcano in United States proper
Mammoth Cave (Kentucky), 1936	50,695.73	Vast limestone labyrinth with underground river
Mesa Verde (Colorado), 1906	51,017.87	Best preserved pre-historic cliff dwellings in United States
Mount McKinley (Alaska), 1917	1,939,319.04	Highest mountain in North America; spectacular wildlife
Mount Rainier (Washington), 1899	241,571.09	Greatest single-peak glacial system in United States
Olympic (Washington), 1938	841,032.04	Finest mountain wilderness of Pacific Northwest
Platt (Oklahoma), 1906	911.97	Cold mineral springs with distinctive properties
Rocky Mountain (Colorado), 1915	253,919.63	Section of the Rocky Mountains; 65 peaks over 10,000 feet
Sequoia (California), 1890	385,099.79	Groves of giant sequoias; world's largest and probably oldest living things; includes Mt. Whitney, highest mountain in U. S. proper
Shenandoah (Virginia), 1935	193,472.98	Tree covered mountains; scenic Skyline Drive
Wind Cave (South Dakota), 1903	27,885.67	Limestone caverns in Black Hills; buffalo herd
Yellowstone (Wyoming-Montana-Idaho), 1872	2,213,206.55	World's greatest geyser area; spectacular falls and canyon; one of world's great wildlife sanctuaries
Yosemite (California), 1890	757,200.61	Mountains; inspiring gorges and waterfalls; giant sequoias
Zion (Utah), 1919	94,241.06	Multicolored gorge in heart of southern Utah desert

National Historical Parks

Name and location	Acreage in U. S. ownership
Abraham Lincoln (Kentucky)	116.50
Chalmette (Lousiana)	69.61
Colonial (Virginia)	7,146.66
Morristown (New Jersey)	958.37
Saratoga (New York)	2,113.59

National Monuments*

Ackia Battleground (Mississippi)	49.15
Andrew Johnson (Tennessee)	16.33
Appomattox Court House (Va.)	968.25
Arches (Utah)	33,929.94
Aztec Ruins (New Mexico)	27.14
Badlands (South Dakota)	123,492.46
Bandelier (New Mexico)	27,048.89
Big Hole Battlefield (Montana)	200.00
Black Canyon of the Gunnison (Colorado)	13,176.02
Cabrillo (California)	.50
Canyon de Chelly (Arizona)	83,840.00
Capitol Reef (Utah)	33,068.74
Capulin Mountain (New Mexico)	680.42
Casa Grande (Arizona)	472.50
Castillo de San Marcos (Florida)	18.51
Castle Clinton (New York)	1.00
Castle Pinckney (South Carolina)	3.50
Cedar Breaks (Utah)	6,172.20
Chaco Canyon (New Mexico)	21,239.95
Channel Islands (California)	26,819.26
Chiricahua (Arizona)	10,529.80
Colorado (Colorado)	18,120.55
Craters of the Moon (Idaho)	47,210.67
Custer Battlefield (Montana)	765.34
Death Valley (Calif.-Nev.)	1,860,138.31
Devil Postpile (California)	798.46
Devils Tower (Wyoming)	1,193.91
Dinosaur (Utah-Colorado)	190,798.49
Effigy Mounds (Iowa)	1,000.00
El Morro (New Mexico)	240.00
Fort Frederica (Georgia)	79.30
Fort Jefferson (Florida)	47,125.00
Fort Laramie (Wyoming)	214.41
Fort Matanzas (Florida)	227.76
Fort McHenry (Maryland)	47.64
Fort Pulaski (Georgia)	5,427.39
Fort Sumter (South Carolina)	2.40
Fossil Cycad (South Dakota)	320.00
George Washington Birthplace (Virginia)	393.68
George Washington Carver (Missouri)	210.00
Gila Cliff Dwellings (N. Mex.)	160.00
Glacier Bay (Alaska)	2,297,734.10
Gran Quivira (New Mexico)	450.94
Grand Canyon (Arizona)	196,051.00
Great Sand Dunes (Colorado)	35,908.19
Homestead (Nebraska)	162.73
Hovenweep (Utah-Colorado)	410.32
Jewel Cave (South Dakota)	1,274.56
Joshua Tree (California)	427,096.49

* Holy Cross, Jackson Hole, and Wheeler National Monuments have been abolished.

National Monuments,—(cont.)

Name and location	Acreage in U. S. ownership
Katmai (Alaska)	2,697,590.00
Lava Beds (California)	46,161.99
Lehman Caves (Nevada)	640.00
Meriwether Lewis (Tennessee)	300.00
Montezuma Castle (Arizona)	783.09
Mound City Group (Ohio)	57.00
Muir Woods (California)	473.96
Natural Bridges (Utah)	2,649.70
Navajo (Arizona)	360.00
Ocmulgee (Georgia)	683.48
Old Kasaan (Alaska)	38.00
Oregon Caves (Oregon)	480.00
Organ Pipe Cactus (Arizona)	328,161.73
Perry's Victory (Ohio)	14.25
Petrified Forest (Arizona)	85,303.63
Pinnacles (California)	12,817.77
Pipe Spring (Arizona)	40.00
Pipestone (Minnesota)	115.60
Rainbow Bridge (Utah)	160.00
Saguaro (Arizona)	53,669.24
Scotts Bluff (Nebraska)	2,196.41
Shoshone Cavern (Wyoming)	212.37
Sitka (Alaska)	57.00
Statue of Liberty (New York)	10.38
Sunset Crater (Arizona)	3,040.00
Timpanogos Cave (Utah)	250.00
Tonto (Arizona)	1,120.00
Tumacacori (Arizona)	10.00
Tuzigoot (Arizona)	42.67
Verendrye (North Dakota)	253.04
Walnut Canyon (Arizona)	1,641.62
White Sands (New Mexico)	140,247.04
Whitman (Washington)	45.84
Wupatki (Arizona)	34,853.03
Yucca House (Colorado)	9.60
Zion (Utah)	33,920.75

National Military Parks

Chickamauga and Chattanooga (Georgia-Tennessee)	8,127.16
Fort Donelson (Tennessee)	102.54
Fredericksburg and Spotsylvania (Virginia)	2,420.71
Gettysburg (Pennsylvania)	2,541.86
Guilford Courthouse (N. C.)	148.83
Kings Mountain (South Carolina)	4,012.00
Moores Creek (North Carolina)	30.00
Petersburg (Virginia)	1,501.17
Shiloh (Tennessee)	3,720.26
Stones River (Tennessee)	325.86
Vicksburg (Mississippi)	1,323.56

National Memorial Park

Theodore Roosevelt (N. Dak.)	59,420.56

National Battlefield Parks

Kennesaw Mountain (Georgia)	3,094.21
Richmond (Virginia)	684.44

National Battlefield Sites

Antietam (Maryland)	183.33
Brices Cross Roads (Mississippi)	1.00
Cowpens (South Carolina)	1.00
Fort Necessity (Pennsylvania)	2.00

National Battlefield Sites—(cont.)

Name and location	Acreage in U. S. ownership
Tupelo (Mississippi)	1.00
White Plains (New York)	0.00

National Historic Sites

Adams Mansion (Massachusetts)	4.05
Atlanta Campaign Markers (Ga.)	20.96
Federal Hall Memorial (New York)	.49
Fort Raleigh (North Carolina)	16.70
Hampton (Maryland)	43.30
Home of Franklin D. Roosevelt (New York)	33.23
Hopewell Village (Pennsylvania)	848.06
Jefferson National Expansion Memorial (Missouri)	82.58
Manassas Battlefield Park (Va.)	1,670.74
Old Philadelphia Custom House (Pennsylvania)	.79
Salem Maritime (Massachusetts)	8.61
San Juan* (Puerto Rico)	40.00
Vanderbilt Mansion (New York)	211.65

National Memorials

DeSoto (Florida)	24.18
House Where Lincoln Died (D. C.)	.05
Kill Devil Hill (N. C.)	314.40
Lee Mansion (Virginia)	2.71

* Approximate acreage. Area not included in Park System totals since it is administered by agreement with the Department of the Army, which has basic jurisdiction.

National Memorials—(cont.)

Name and location	Acreage in U. S. ownership
Lincoln Memorial (D. C.)	.61
Lincoln Museum (D. C.)	.18
Mount Rushmore (S. Dak.)	1,220.32
New Echota Marker (Georgia)	.92
Thomas Jefferson (D. C.)	1.20
Washington Monument (D. C.)	.37

National Cemeteries*

Antietam (Maryland)	11.36
Battleground (District of Columbia)	1.03
Fort Donelson (Tennessee)	15.34
Fredericksburg (Virginia)	12.00
Gettysburg (Pennsylvania)	15.55
Poplar Grove (Virginia)	8.72
Shiloh (Tennessee)	10.25
Stones River (Tennessee)	20.09
Vicksburg (Mississippi)	119.76
Yorktown (Virginia)	2.91

National Parkways

Blue Ridge (N. C.-Va.)	49,207.42
George Washington Memorial (Va.-Md.)	2,917.33
Natchez Trace (Tenn.-Ala.-Miss.)	15,806.75
Suitland (Md.-D. C.)	662.87

National Capital Parks

National Capital Parks (D. C.-Va.-Md.)	29,223.71

* Arlington National Cemetery, in Virginia, is not shown because it is under the jurisdiction of the Department of the Army rather than of the National Park Service.

The National Geographic Society

The National Geographic Society, with headquarters in Washington, D. C., was founded in 1888 "for the increase and diffusion of geographic knowledge."

In furthering its objectives, the Society has published a monthly magazine of popular and pictorial geography, has prepared and issued more than a hundred large supplement maps covering major world areas, and has sponsored—either alone or in cooperation with government, military, educational and scientific organizations—scores of globe-ranging expeditions.

The Society also maintains a free information service for the use of hundreds of newspapers, press associations, radio and television commentators as well as some 35,000 public school teachers.

Expeditions sponsored or co-sponsored by the Society have reached from Arctic to Antarctic regions, from ocean deeps to the stratosphere. Its flag was with Peary at the North Pole in 1909 and later with Byrd at both the North and South Poles. The Society backed the 1934 bathysphere descents of William Beebe into the depths of the ocean off Bermuda, and the following year, it supported the highest-yet stratosphere flight over South Dakota by U. S. Army Air Corps pilots.

Current projects include an archaeological expedition to Panamá, as well as scientific studies of the aurora borealis, cosmic rays, and the infinite areas of the stars.

Backed jointly by the National Geographic Society and the California Institute of Technology, a project to provide the world with the first definitive sky atlas went under way in 1949 at the famous Palomar Observatory in California. Completion of this survey is expected in four years. It should provide a collection of some 2,000 reproductions of photographic plates recording 500 million stars and perhaps 10 million complete stellar systems outside our own.

Museums of the United States

Source: Questionnaires to Museums.

NEW YORK CITY

American Academy of Arts and Letters: 633 W. 155th St., New York 32. Open: wkdys. & Sun. during exhib. 2–5 (closed Mon.). Otherwise by appt. Free.
Painting, sculpture by members of Academy and National Institute of Arts and Letters. Fall Exhibition by candidates for Art Grant. Spring Exhibition by new members and recipients of Grants. Hassam Fund purchases.

American Museum of Natural History: Central Park W. at 79th St., New York 24. Open: wkdys. 10–5, Sun. & hldys. 1–5. Free.
Covers all branches of natural sciences except systematic botany with thorough exhibits in each field. Large habitat groups of animals. Planetarium. Library.

Brooklyn Museum: Eastern Pkwy., Brooklyn 17, N. Y. Open: wkdys. 10–5, Sun. & hldys. 1–5 (closed Xmas). Free.
European and American paintings. Egyptian collection. Art of China, Japan, India, Near East. Exhibits showing Primitive and New World cultures. American rooms. Industrial design laboratory. Art school. Library and concerts.

Cloisters: Ft. Tryon Pk., New York 33. Open: wkdys. 10–5 (closed Mon.), Sun., hldys. 1–5 (May–Sept. 1–6). Free (Fri. 25c. plus Fed. tax).
Cloisters, chapel, chapter house reconstructed from parts of old European structures. Frescoes, polychromed statues, stained glass, Gothic tapestries. Branch of Metropolitan Museum of Art.

Frick Collection: 1 E. 70th St., New York 21. Open: wkdys. 10–5 (closed Mon. & mo. of Aug.), Sun. & hldys. 1–5. Free.
Paintings, watercolors, prints, drawings of 14th to 19th centuries. Italian Renaissance and French sculpture. Chinese and French porcelain. Concerts, lectures.

Hispanic Society of America: Broadway bet. 155th and 156th Sts., New York 32. Open: wkdys. 10–4:30 (closed Mon.), Sun. 1–5. Library open: wkdys. 1–4:30 (closed Sun., Mon., hldys., mo. of Aug.). Free.
Devoted to Spanish and Portuguese art, literature. Paintings, sculpture, ceramics, metalwork, furniture, textiles, manuscripts.

Metropolitan Museum of Art: 5th Ave. at 82nd St., New York 28. Open: wkdys. 10–5, Sun., hldys. 1–5. Free.
Extensive collection of European and American paintings, decorative arts, prints. Egyptian, Asiatic, Classical art. Musical instruments, arms and armor. American period rooms. Costumes and textiles. Library. *See also* Cloisters.

Museum of Modern Art: 11 W. 53rd St., New York 19. Open: wkdys. 12–7, Sun. & hldys. 1–7. Adm. 60c (children 20c).
Founded to encourage study of modern art and its application to manufacturing and practical life. Constantly changing exhibitions of contemporary painting, sculpture, photography, architecture, industrial design, films.

Museum of Non-Objective Painting: 1071 5th Ave., New York 28. Open: wkdys. 10–6 (closed Mon.), Sun. 12–6. Free.
Works by the masters of non-objective painting. Group loan shows. Bach and Beethoven music.

Museum of the American Indian, Heye Foundation: Broadway at 155th St., New York 32. Open: Tues.–Sat. 2–5 (closed Sun., Mon., hldys.). Free.
Archaeology and ethnology of Americas from Arctic Circle to Tierra del Fuego.

Museum of the City of New York: 5th Ave. at 104th St., New York 29. Open: wkdys. 10–5 (closed Mon.), Sun. 1–5, closed Xmas. Free.
History of New York City. Period costumes, furniture, miniature scenes, portraits, paintings, prints, manuscripts, silver, toys, fire engines, horse car. Theater and music collections.

National Academy of Design: 1083 5th Ave. (at 90th St.) New York 28. Open: wkdys. & Sun. 1–5 (during exhibitions). Adm. 25c.
Special annual exhibitions by selected organizations Oct. thru June.

New York Historical Society: Central Park W. at 77th St., New York 24. Open: wkdys. & Sun. 1–5, (Sat. 10–5, closed Mon., NY Day, July 4, Thnks. Day, Xmas, month of Aug.). Free.
New York city and state historical exhibits. Early American paintings and portraits. American folk arts and crafts. Audubon watercolors of birds. John Rogers statuette groups. Library.

Roosevelt (Theodore) Museum: 28 E. 20th St., New York 3. Open: wkdys. 10–5 (closed Mon.), Sun. & hldys. 1–5 (closed Thnks. Day, Xmas, NY Day). Free.
Restored birthplace of Roosevelt. Mounted lion shot by him in Africa. Photographs, letters, trophies, personal items. Extensive cartoon collection.

Whitney Museum of American Art: 10 W. 8th St., New York 11. Open: wkdys. & Sun. 1–5 (closed Mon. & June 1–Sept. 15). Free.
Sculpture, paintings, watercolors, drawings, prints by American artists. Annual exhibitions of American contemporaries.

CHICAGO

Art Institute of Chicago: Michigan Ave. at Adams St., Chicago 3, Ill. Open: wkdys. 9–5, Sun. 12–5. Adm. 30c. (free Wed., Sat., Sun., hldys.).

Paintings, sculpture, prints, drawings. Oriental arts; European. American decorative arts. Thorne Miniature Rooms. Library, art school.

Chicago Academy of Sciences, Museum of Natural History: 2001 N. Clark St., Chicago 14, Ill. Open: wkdys. 1–4 (Sat. 10–5, closed Mon.), Sun. & hldys. 10–5. Free.

Emphasis on regional natural history. Habitat groups of existing and prehistoric animals. Study collections of North American flora and fauna.

Chicago Historical Society: N. Clark St. at North Ave., Chicago 14, Ill. Open: wkdys. 9:30–4:30, Sun. 12:30–5:30. Free (Sun., Mem. Day, July 4, Lab. Day 25c.).

Exhibits and period rooms from discovery and exploration of America to present. Special emphasis on history of Chicago. Washington, Lincoln exhibits.

Chicago Natural History Museum (formerly Field Museum): Roosevelt Rd. at Lake Shore Dr., Chicago 5, Ill. Open: wkdys. & Sun.—Nov.–Feb. 9–4; May–Aug. 9–6; Mar., Apr., Sept., Oct. 9–5 (closed Xmas and NY Day). Adm. 30c. (free Thurs., Sat., Sun.).

Exhibits in anthropology, botany, geology, zoology. Prehistoric skeletons. Dioramas of Stone-Age Europe. Vast Egyptian collection. Model of moon.

Museum of Science and Industry: 57th St. at Lake Michigan, Chicago 37, Ill. Open: fall & winter—wkdys. 9:30–4 (Sat. 9:30–5:30), Sun. & hldys. 9:30–7; spring & summer—wkdys. 9:30–5:30, Sun. & hldys. 9:30–7. Free (small fee to several exhibits).

Over 8 acres of exhibits. Working coal mine. Full-size street of 1910. Fully equipped farm. Evolution of automobile and airplane. Working iron foundry. Exhibits in physics, medicine, chemistry. Colleen Moore's Doll House.

Oriental Institute of the University of Chicago: 1155 E. 58th St., Chicago 37, Ill. Open: June 1–Nov. 30—wkdys. 10–5, Sun. 11–5; Dec. 1–May 31—wkdys. 1–5 (Sat. 10–5), Sun. 11–5. Free.

Representative collections of Near Eastern objects, including 40-ton human-headed winged bull from Khorsabad; 16-ft. statue of Tutenkhamon from Egypt; gold ornaments from ancient Persia.

Vanderpoel (John H.) Memorial Art Gallery: Longwood Dr. at 96th St., Chicago 43, Ill. Open: wkdys. & Sun. 9–5 (closed hldys.). Free.

Paintings, watercolors, etchings, sculpture. Attempts to serve the person uninformed in art as well as the connoisseur.

WASHINGTON, D. C.

Corcoran Gallery of Art: 17th St. at New York Ave., N. W., Washington 6, D. C. Open: wkdys. 10–4:30 (Mon. 12–4:30, Sat. 9–4:30), Sun. & hldys. 2–5 (closed Xmas & July 4). Free.

Specializes in American art, but has notable collection of 17th century Dutch and 19th century French paintings. Persian rugs, Italian majolica, Greek and Roman antiquities. Bayre bronzes. Large collection of American sculpture.

Freer Gallery of Art: Jefferson Dr. at 12th St., S.W., Washington 25, D. C. Open: wkdys. & Sun. 9–4:30 (closed Xmas). Free.

Oriental paintings, sculpture, bronzes, pottery, metalwork, manuscripts. Largest extant Whistler collection.

National Air Museum: The Mall, 10th and Jefferson Dr., Washington 25, D. C. Open: every day but Xmas 9–4:30. Free.

38 full-sized aircraft, including Wright brothers' *Kitty Hawk*, Lindbergh's *Spirit of St. Louis*, Wiley Post's *Winnie Mae*, Bell Supersonic *X-1*. Guided missiles, engines, propellers, structure specimens, instruments, etc.

National Collection of Fine Arts: Constitution Ave. at 10th St., Washington 25, D. C. Open: wkdys. & Sun. 9–4:30. Free.

Art collections given by Harriet Lane Johnston, Ralph Cross Johnson, William T. Evans, John Gellatly and others.

National Gallery of Art: Constitution Ave. at 6th St., Washington 25, D. C. Open: wkdys. 10–5, Sun. 2–10, closed Xmas & New Year's Day. Free.

Paintings, sculpture, drawings, prints, decorative arts given by Mellon, Kress, Widener, Rosenwald, Dale, the Booths and others. Gulbenkian loans. Index of American Design. Concerts.

Smithsonian Institution: on the Mall, Washington 25, D. C.

Maintains the following museums and art galleries: Freer Gallery of Art, National Air Museum, National Collection of Fine Arts, National Gallery of Art, U. S. National Museum. *See* those entries.

United States National Museum: several bldgs. on the Mall, Washington 25, D. C. Open: wkdys. & Sun. 9–4:30. Free.

Exhibits in anthropology, biology, geology, engineering, industry, history. Relics of Washington and Lincoln.

PHILADELPHIA

Academy of Natural Sciences of Philadelphia: 19th and the Parkway, Philadelphia 3, Pa. Open: wkdys. 9–5 (summer 9–4), Sun. 1–5. Free.

Large habitat groups of animals of North America, Africa, Asia. Hall of Earth History and Audubon Bird Hall. Minerals and gems. Library.

Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts: 20th St. at Benj. Franklin Pkwy., Philadelphia 3, Pa. Open: wkdys. 12–5 (Sat. 10–5, closed Mon.), Sun. 12–5. Adm. 60c (children 36c).

Activities grouped into 7 major categories: Benj. Franklin Memorial; monthly Journal; lectures; library; medal awards;

museum of science and industry, including planetarium; research laboratories.

Pennsylvania Academy of the Fine Arts: Broad and Cherry Sts., Philadelphia 2. Open: wkdys. 10–5 (closed Mon., July 4, Thnks. Day, Xmas, NY Day), Sun. & hldys. 1–5. Free (except during two annual exhibitions).

Permanent collections include American art from 18th century to present. Special winter exhibit of painting, sculpture. Special fall exhibit of water colors, prints, miniatures.

Philadelphia Museum of Art: Parkway at 26th St., Philadelphia 30, Pa. Open: wkdys. & Sun. 9:30–5 (closed all legal hldys.). Free.

Art from beginning of Christian era. Paintings: old masters, contemporary French, American, Mexican. Prints, decorative arts, period rooms. Architectural units. Medieval and Oriental arts.

MUSEUMS IN OTHER CITIES

Alabama Museum of Natural History: University of Alabama, Tuscaloosa. Open: wkdys. & Sun. 8–5. Free.

All phases of natural history with emphasis on geology. *See also* Mound State Monument Archaeological Museum.

Albright Art Gallery. *See* **Buffalo Fine Arts Academy.**

Atkins Museum. *See* **Nelson Gallery.**

Atomic Energy, American Museum of: Oak Ridge, Tenn. Open: wkdys. 9:30–5; Sun. 12:30–6:30. Adm. 50c (children under 12 free).

Scale models, pictures, etc. illustrating processes and principles of atomic energy. First museum in world devoted exclusively to subject.

Baseball Hall of Fame and Museum, Natl.: Main St., Cooperstown, N. Y.

Relics, pictures, documents of baseball history. Bronze plaques of game's immortals. *See also* Hall of Fame in index.

Berkshire Museum: Pittsfield, Mass. Open: wkdys. 10–5 (closed Mon.), Sun. 2–5. Free.

Art objects from Egyptian to modern times. Paintings and sculpture. Indian and Eskimo exhibits. Original "One Horse Shay."

(Boston) Museum of Fine Arts: 465–479 Huntington Ave., Boston 15, Mass. Open: wkdys. 9–5 (closed Mon.), Sun. 1:30–5:30. Free.

European and American paintings. Early American silver, furniture, interiors. Print collection largest in U. S. Noted Asiatic, Egyptian, Classical collections.

Buffalo Fine Arts Academy—Albright Art Gallery: 1285 Elmwood Ave., Buffalo 22, N. Y. Open: wkdys. 10–5 (Mon. 2–6, Wed. 2–10), Sun. 2–6. Free.

European and American paintings, including contemporary works. Sculpture court. Small sculptures and ceramics. Religious art. Library and concerts.

Buffalo Museum of Science: Humboldt Park, Buffalo, N. Y. Open: wkdys. 10–5 (Sat. 9–5), Sun. & hldys. 1:30–5:30. Free.

Extensive natural history collections. African and South Sea exhibits. Chinese pottery. Babylonian seals. First and rare editions of scientific monographs.

California Academy of Sciences: Golden Gate Park, San Francisco 18. Open: wkdys. & Sun. 10–5. Free.

North American and African habitat groups. Exhibits of large game fish. Reptiles, plants, fossils, minerals. Astronomical exhibits. Aquarium.

California Palace of the Legion of Honor: Lincoln Park, San Francisco. Open: every day of year 10–5. Free.

European and American paintings. Rodin sculpture and drawings. Furniture, bronzes, porcelain, tapestries. Egyptian art. Organ recitals and movies.

Carnegie Institute: 4400 Forbes St., Pittsburgh 13, Pa. Open: wkdys. 10–5 (Tues. during winter mos. 10–10), Sun. 2–6. Free.

Department of Fine Arts: European and American paintings, ancient sculpture. Carnegie Museum: exhibits in history and natural history. Decorative and useful arts. Music Hall. Carnegie Library.

Cincinnati Art Museum: Eden Park, Cincinnati 6, Ohio. Open: wkdys. 10–5 (Tues. during Oct.–May 1–10), Sun. & hldys. 2–5. Free.

Paintings, prints since 15th century. Egyptian, Greco-Roman, Medieval, Oriental sculpture. Pottery, bronzes. Musical instruments, 18th-century decorative arts. Library, movies.

Cleveland Museum of Art: Wade Park, Cleveland 6, Ohio. Open: wkdys. 9–5 (Wed. 9 A.M.–10 P.M., Fri. 9–5, 7–10 Oct. thru May, closed Mon.), Sun. 1–6. Free.

Classical and modern art of all nations and ages; considerable art of Cleveland. Paintings, sculpture, graphic arts, furniture, textiles. Byzantine, Medieval, Early American collections.

Cleveland Museum of Natural History: 2717 Euclid Ave., Cleveland 15, Ohio. Open: wkdys. 9–5, Sun. 2–6. Free.

Mammals, birds, reptiles, fish, insects, plants, minerals. Most complete mastodon yet found. Hanna Star Dome, showing constellations month by month.

Colorado Springs Fine Arts Center: 30 W. Dale St., Colorado Springs, Colo. Open: wkdys. 10–5 (closed Mon. from Sept. thru May), Sun. 1:30–5. Free.

Contemporary paintings. Latin American and Southwestern folk arts and crafts. Navajo sand-painting reproductions. Frequently changing exhibitions. Concerts, theater arts.

Currier Gallery of Art: 192 Orange St.,

Manchester, N. H. Open: wkdys. 10–5, Sun. 2–5. Free.
Paintings, prints, drawings, sculpture, glass, tapestries. American furniture and decorative arts of 17th to 19th centuries. Monthly loan exhibitions. Concerts, lectures, movies.

Davenport Public Museum: Brady St. at 7th, Davenport, Iowa. Open: wkdys., Sun., hldys. 2–5 (Sat. 9–12, 1–4, closed Mon.). Free.
Science, history, applied art exhibits, including anthropology, ethnology, Oriental and Mediterranean culture. Art and Historical Library at 215 Main St.

Denver Art Museum: 5 museums, under administration of Schleier Gallery, 1343 Acoma St., Denver 4, Colo. Open: wkdys. 9–5 (Mon. 2–5, 7–9), Sun. 2–5. Free.
European, American paintings and decorative arts. Oriental, South Sea, African, Latin American, Amer. Indian arts and crafts. Art school, children's museum.

Denver Museum of Natural History: City Park, Denver 6. Open: wkdys. 9–5, Sun. 12–5. Free.
Natural history of North and South America. Habitat groups of mammals and birds. Minerals, fossil and reptile skeletons.

Detroit Institute of Arts: 5200 Woodward Ave., Detroit 2, Mich. Open: Sept.–June—wkdys. 1–10 (Sat. 9–6, closed Mon.), Sun. 9–6; July & Aug.—wkdys. & Sun. 9–6 (closed Mon.); closed all hldys. Free.
Survey of history as expressed in arts. Paintings, sculpture, furniture, glass, gold work, ivory, graphic arts, textiles. Large murals by Diego Rivera. Lectures, movies, gallery talks.

Farmers' Museum: Lake Rd., Route 80, Cooperstown, N. Y. Open: May–Oct. every day 9–6. Adm. 80c.
Early farm and handicraft tools. Schoolhouse, country store, smithy, lawyer's office, print shop, doctor's office, pharmacy. Cardiff Giant. Operated by N. Y. State Historical Assn.

Fenimore House: Lake Rd., Route 80, Cooperstown, N. Y. Open: May–Oct.—every day 9–6; rest of yr.—wkdys. 9–5, closed Sat. & Sun. Adm. 80c.
American portraits, genre paintings. Browere life masks of Founding Fathers. Hamilton-Burr Room. James Fenimore Cooper Collection. Folk art, Shaker collection. Library. Operated by N. Y. State Historical Assn.

Gardner (Isabella Stewart) Museum: 280 The Fenway, Boston 15, Mass. Open: Tues., Thurs., Sat. 10–4, Sun. 1–4 (closed other days, hldys., and during Aug.). Free (children under 8 not admitted).
Renaissance art in setting resembling Venetian palace. Painting, sculpture, tapestries, furniture. Music in Tapestry Room in afternoon of open days.

Heard Museum: 22 E. Monte Vista Rd., Phoenix, Ariz. Open: wkdys. & Sun. 1–5 (closed Mon.). Free.
Prehistoric and historic pottery, blankets, beadwork, carvings, weapons, etc. from various parts of world.

Herron (John) Art Museum: 110 E. 16th St., Indianapolis, Ind. Open: wkdys. 9–5 (closed Mon. & hldys.), Sun. 1–6. Free.
European paintings from Renaissance to present. American paintings of 19th and 20th centuries. Egyptian and Asiatic sculpture and ceramics.

Huntington (Henry E.) Library and Art Gallery: San Marino 9, Calif. Open: wkdys. & Sun. 1–4:30 (closed Mon. and during Oct.). Free (reservations must be made).
18th century British paintings. Library of English and American history and literature. Gutenberg Bible. Franklin's autobiography in his handwriting. Botanical garden. Research facilities.

Layton Art Gallery: 758 N. Jefferson St., Milwaukee 2, Wis. Open: wkdys. 9–5, Sun. 2–5. Free.
Exhibitions of selections from permanent collections, including contemporary artists. Special exhibitions, lectures.

Los Angeles County Museum: Exposition Park, Los Angeles 7, Calif. Open: wkdys. & Sun. 10–5 (closed Mon., Thnks. Day, Xmas). Free.
American, European, Eastern art. American, English silver. American Indian exhibits. California History Hall. Movies, lectures, concerts, library.

Mint Museum of Art: 501 Eastover Rd., Charlotte, N. C. Open: wkdys. 10–5 (closed Mon.), Sun. 3–5. Museum closed Aug. 15–Sept. 15. Free.
American and European paintings and prints. Period furniture. Relics of former U. S. branch mint. Eagle on façade believed to be largest carved wooden eagle in world.

Mound State Monument Archaeological Museum: Moundville, Ala. Open: wkdys & Sun. 8–5. Adm. 25c.
Uncovered Indian burials, etc., of Moundville Indians. Operated by Alabama Museum of Natural History.

Navajo Ceremonial Art, Museum of: Camino Lejo, near old Pecos Rd., Santa Fe, N. Mex. Open: wkdys. 9–12, 1–4:30 (closed Mon.), Sun. 3–5. Adm. 25c (free Sun.).
Sand paintings, ceremonial objects, baskets, blankets, silver. Music records of chants. Comparative material from Asia and elsewhere. Library.

Nelson (William Rockhill) Gallery of Art and Atkins Museum of Fine Arts: 4525 Oak, Kansas City 2, Mo. Open: wkdys. 10–5 (Fri. 1–5, closed Mon.), Sun. & hldys. 2–6 (closed NY Day, July 4, Thnks. Day, Xmas). Also open Fri. eves. 7–10 from Oct. 1–Apr. 30. Adm. 25c. (free Sat., Sun., hldys., Fri. eves.).

European paintings from 13th century to present. Extensive Chinese collection. Egyptian, Greek, Roman collections. English pottery. Concerts, movies.

New York State Historical Association: Lake Rd., Route 80, Cooperstown, N. Y.
Maintains Farmers' Museum and Fenimore House. *See* those entries. Also operates museum and library on Moses Circle in village of Ticonderoga.

Newark Museum: 49 Washington St., Newark 2, N. J. Open: Oct.–June—wkdys. 12–5:30 (Wed. & Thur. 12–5:30, 7–9:30), Sun. & hldys. 2–6; July–Sept.—wkdys. 12–5 (Thur. 12–5, 6:30–9), Sun. & hldys. 2–6. Free.
American painting and sculpture, including contemporary work. Outstanding Tibetan collection. Ancient glass. Coins of all nations. Exhibits in mechanical motion, astronomy, natural science, anthropology. Concerts.

Ringling (John & Mable) Museums: Sarasota, Fla. Open every day: Art Museum 9–4:30, Residence and Circus Museum 10–4. Adm.: Art Museum $1, Residence (incl. Circus Museum) $1, Circus Museum 50c.
Collection of Baroque and other paintings in Art Museum. Elaborate furnishings in Residence. Illustrative and historical material in Museum of the American Circus.

Rosicrucian Egyptian, Oriental Museum: San Jose, Calif. Open: wkdys. 9–5 (Sat. 1–5), Sun. 12–5. Free.
Egyptian and Oriental antiquities. Mummies, statuary, jewelry, utensils, clothing. Reproductions of Egyptian rock tomb and temple.

(St. Louis) City Art Museum: Forest Park, St. Louis 5, Mo. Open: wkdys. & Sun. 10–5 (Mon. 2:30–9:30). Free.
Oriental and Western art and decorative arts. Paintings, sculpture, prints, ceramics, oriental rugs. Period rooms.

San Diego, Fine Arts Gallery of: Plaza de Panama, Balboa Park, San Diego, Calif. Open: wkdys. 10–5 (closed Mon.), Sun. 1–5:30. Free.
Old European and modern American paintings, featuring also old and modern Spanish and modern French. Important collection of original prints. Old Asiatic arts. Library.

San Diego Museum of Man: California Quadrangle, Balboa Park, San Diego, Calif. Open: wkdys. 10–5 (closed Tues.), Sun. 1–5. Free.
Archaeology, anthropology, ethnology, primitive weapons, health education. Emphasis on American Indians and Central America. Library, auditorium.

San Diego Society of Natural History—Natural History Museum: San Diego, Calif. Open: wkdys. & Sun. 10–4:30 (closed Xmas, NY Day). Free.
Mammals, birds, fossils, shells, plants, insects, minerals. Emphasis on Southwestern U. S., Sonora, Lower California. Library.

San Francisco Museum of Art: War Memorial Bldg., San Francisco, Calif. Open: wkdys. 12–10 (Sat. 12–9), Sun. 1–5. Free.
Contemporary European and American paintings, drawings, prints, architecture, photographs, decorative arts, including work by San Francisco artists. Concerts and movies. Library.

Southwest Museum, Inc.: Marmion Way at Museum Dr., Highland Pk., Los Angeles 42, Calif. Open: wkdys. & Sun. 1–5 (closed Mon., Xmas, July 4). Free.
American Indian exhibits, ancient and modern. Library, lectures. Casa de Adobe, reproduction of adobe hacienda, located at 4605 N. Figueroa St.

Toledo Museum of Art: Monroe at Scottwood, Toledo 2, Ohio. Open: wkdys. 9–5 (Mon. 1–5), Sun. hldys. 1–5. Free.
Dutch, French, English, American paintings. Old Masters. Prints, manuscripts, sculpture. Ancient, modern glass. Oriental, Egyptian art. Library, concerts.

Virginia Museum of Fine Arts: Boulevard at Grove Ave., Richmond 20. Open: wkdys. 10:30–6 (closed Mon.), Sun. 2–6:00. Free (Tues., Thur., Fri., 25c. plus tax).
European, American, Oriental, Pacific Island art. Special collections: modern French, American paintings, Russian Crown Jewels. Statewide educational programs.

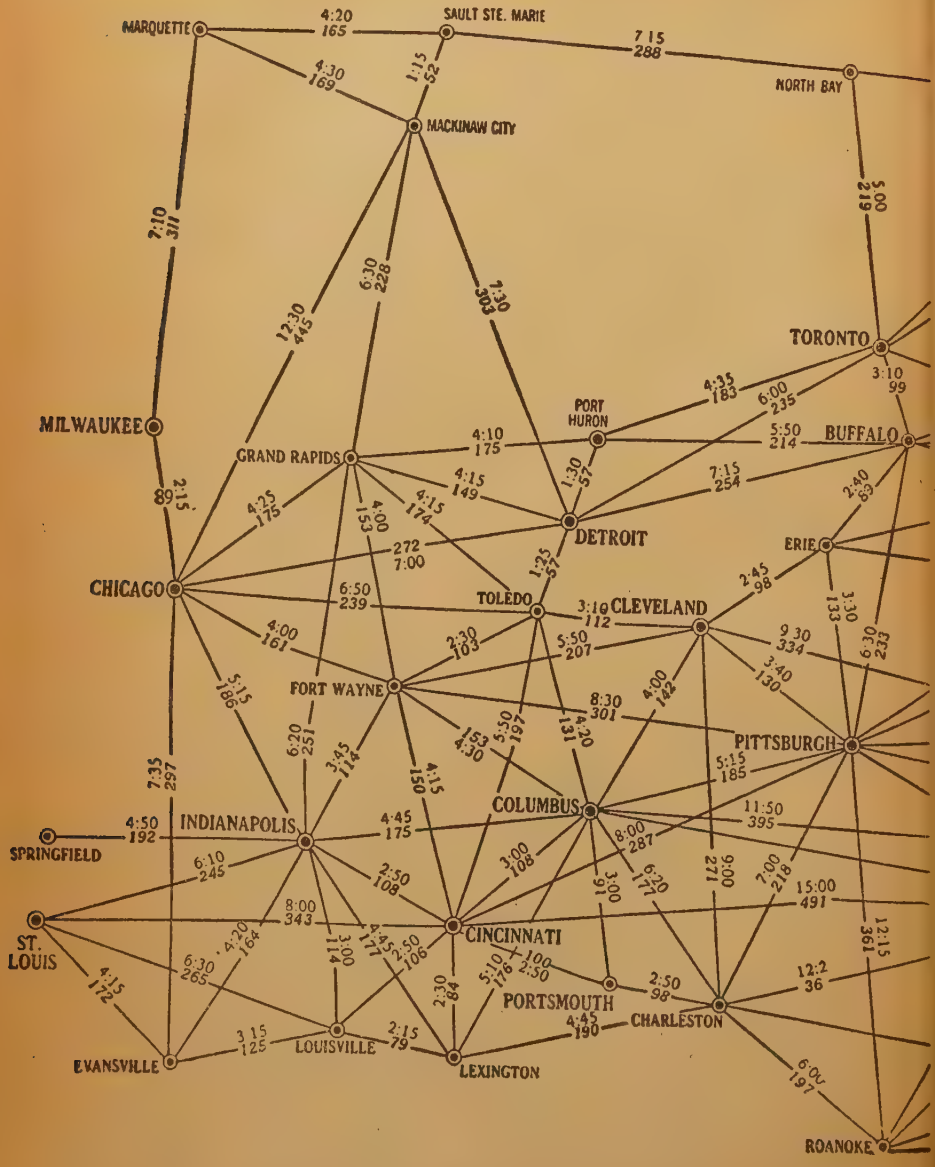
Wadsworth Atheneum: 25 Atheneum Sq., N., Hartford 3, Conn. Open: wkdys. 12–5 (Sat. 9–5, closed Mon., Gd. Fri., July 4, Labor Day. Thnks. Day, Xmas, NY Day), Sun. 2–5. Free.
European and American paintings from 1400 to present. Bronzes, porcelain, silver. American period rooms and furniture. Library, concerts, movies.

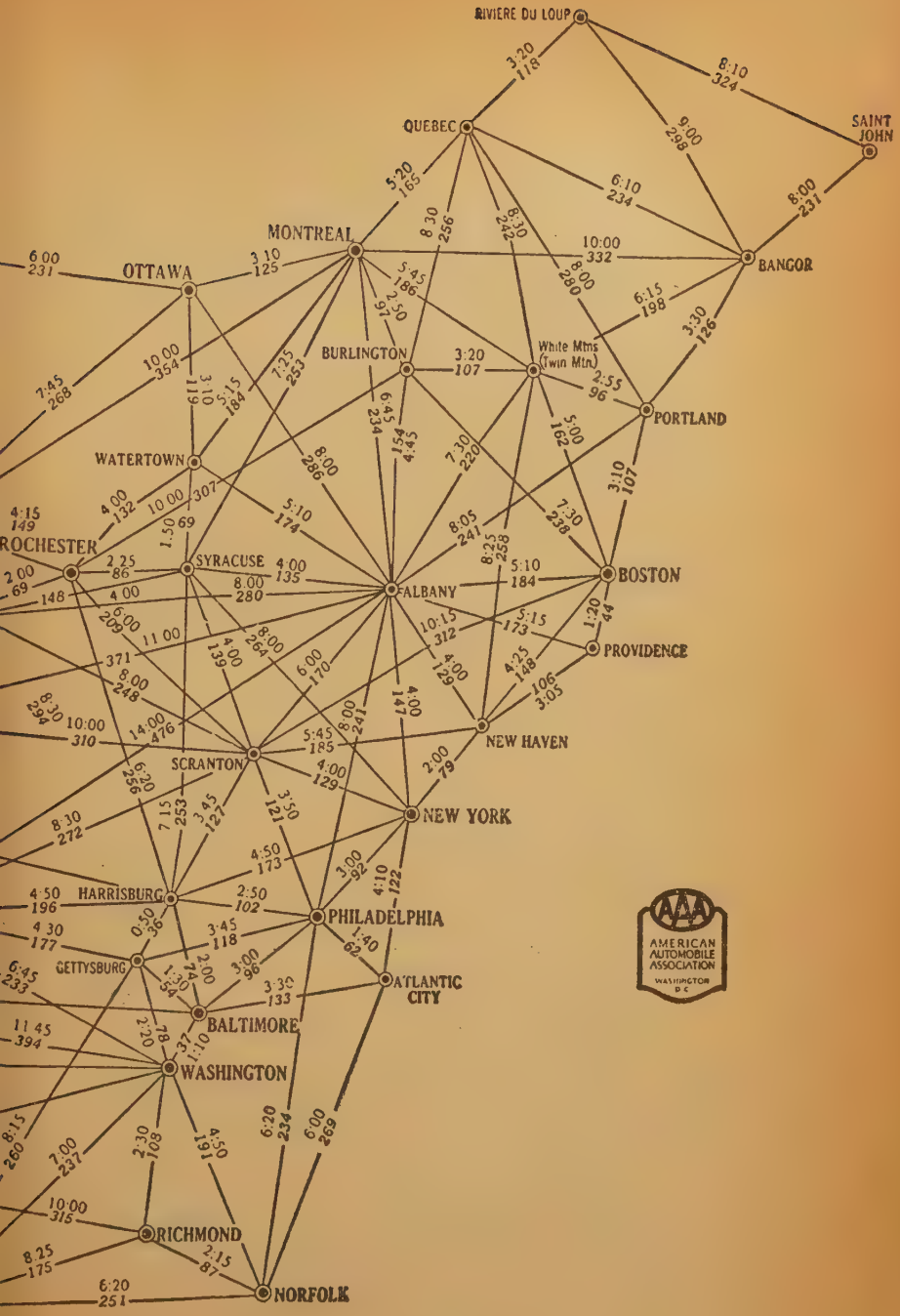
Walters Art Gallery: Charles and Centre Sts., Baltimore 1, Md. Open: wkdys. 11–5 (July–Aug. 11–4) (Mon., Oct.–May, 1:30–5, 7:15–9:15), Sun. & hldys. 2–5(closed NY Day, July 4, Thnks. Day, Xmas Eve, Xmas). Free.
Art from ancient empires to 19th century Europe. Important collections of Etruscan art and medieval illuminated books. Original manuscript of "Star-Spangled Banner."

Worcester Art Museum: 55 Salisbury St., Worcester 2, Mass. Open: wkdys. 10–5 (Tues. in Nov.–Apr. 10–10), Sun. 2–5 (Oct.–May 2–6), hldys. 2–5 (closed July 4, Thnks. Day, Xmas). Free.
Art from Egyptian to modern times, including Far East. Emphasis on painting and sculpture. Classes, lectures, concerts, films. Professional art school.

NORTHEASTERN MILEAGE CHART

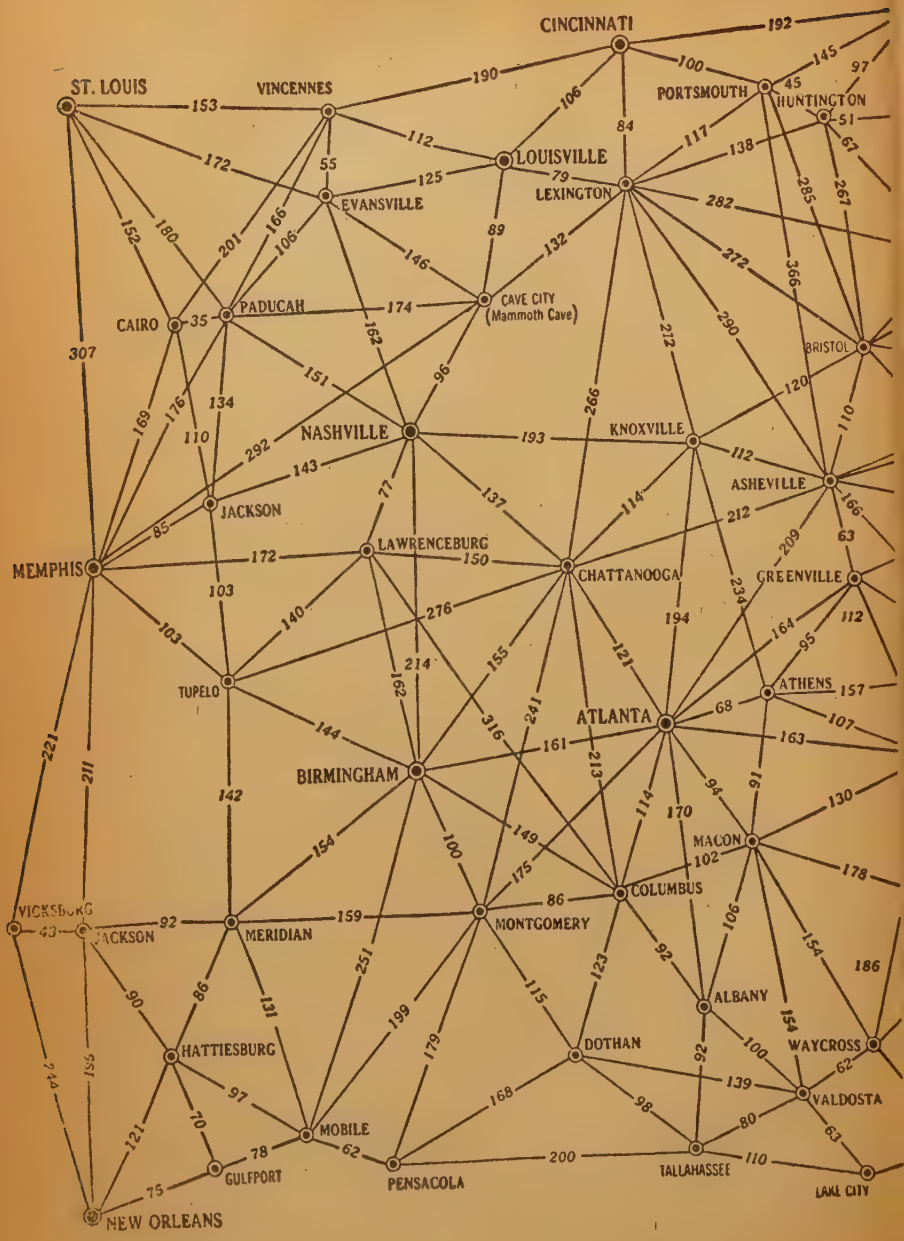
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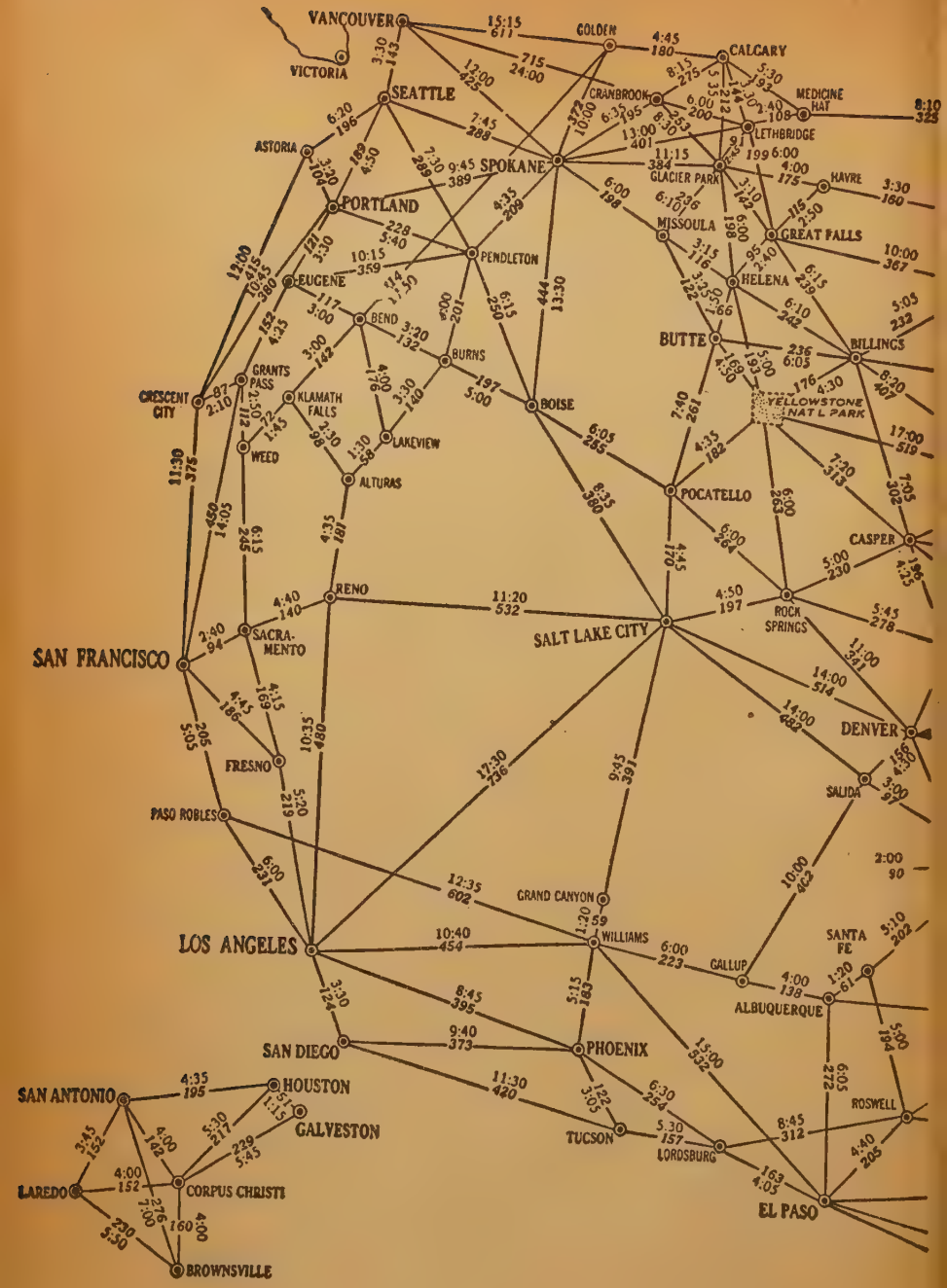

RIVIERE DU LOUP
3:20 118
8:10 324
SAINT JOHN
QUEBEC
9:00 298
5:20 165
6:10 234
8:00 231
MONTREAL
8:30 256
8:30 220
10:00 332
BANGOR
6:00 231
OTTAWA
3:10 125
5:45 186
2:50 97
8:00 280
6:15 198
3:30 126
10:00 354
3:10 119
5:15 184
7:25 253
BURLINGTON
3:20 107
White Mtns (Twin Mtn)
2:55 96
PORTLAND
7:45 268
6:45 234
1:54 4:45
5:00 162
WATERTOWN
8:00 286
7:30 220
3:10 107
4:00 132
10:00 307
5:10 174
8:05 241
8:25 258
7:30 228
4:15 149
1:50 69
ROCHESTER
SYRACUSE
4:00 135
5:10 184
BOSTON
2:00 69
2:25 86
148
4:00 280
ALBANY
6:00 209
11:00 371
8:00 264
4:00 139
6:00 170
10:15 312
5:15 173
1:20 44
PROVIDENCE
8:00 248
4:00 129
4:25 148
106 3:05
8:30 294
10:00 310
14:00 476
8:00 241
4:00 141
NEW HAVEN
5:45 185
SCRANTON
4:00 129
2:00 79
6:20 255
NEW YORK
8:30 272
7:15 253
3:45 127
3:50 121
4:50 173
3:00 92
4:10 122
4:50 196
HARRISBURG
2:50 102
PHILADELPHIA
4:30 177
0:50 36
3:45 118
1:40 62
GETTYSBURG
6:45 233
3:00 96
3:30 133
ATLANTIC CITY
11:45 394
BALTIMORE
2:20 40
2:00 37
1:10 18
WASHINGTON
8:15 260
7:00 237
2:30 108
1:40 90
6:20 234
6:00 269
10:00 315
RICHMOND
8:25 175
2:15 87
6:20 251
NORFOLK
AAA
AMERICAN AUTOMOBILE ASSOCIATION
WASHINGTON D.C.

SOUTHEASTERN MILEAGE CHART

Numerals are mileages between towns.




PARKERSBURG
CLARKSBURG
WINCHESTER
WASHINGTON
NEW MARKET
CHARLESTON
WHITE SULPHUR SPRINGS
LEXINGTON
RICHMOND
ROANOKE
BLUEFIELD
NORFOLK
WINSTON SALEM
GREENSBORO
RALEIGH
WILSON
NEW BERN
CHARLOTTE
PINEHURST
SOUTHERN PINES
FAYETTEVILLE
WILMINGTON
COLUMBIA
SUMTER
SUMMERTON
AUGUSTA
CHARLESTON
SAVANNAH
JACKSONVILLE
AMERICAN AUTOMOBILE ASSOCIATION
WASHINGTON D.C.
TALLAHASSEE
JACKSONVILLE
LAKE CITY
DAYTONA BEACH
DUNNELLON
HAINES CITY
TAMPA
ST. PETERSBURG
W. PALM BEACH
FORT MYERS
MIAMI
KEY WEST


VANCOUVER
VICTORIA
SEATTLE
PORTLAND
ASTORIA
SPOKANE
GOLDEN
CRANBROOK
CALGARY
MEDICINE HAT
LETHBRIDGE
GLACIER PARK
HAVRE
MISSOULA
GREAT FALLS
HELENA
BUTTE
BILLINGS
PENDLETON
EUGENE
BEND
BURNS
BOISE
YELLOWSTONE NAT'L PARK
CRESCENT CITY
GRANTS PASS
KLAMATH FALLS
LAKEVIEW
WEED
ALTURAS
POCATELLO
CASPER
RENO
SACRA-MENTO
SALT LAKE CITY
ROCK SPRINGS
SAN FRANCISCO
DENVER
FRESNO
SALIDA
PASO ROBLES
GRAND CANYON
WILLIAMS
SANTA FE
GALLUP
ALBUQUERQUE
LOS ANGELES
SAN DIEGO
PHOENIX
ROSWELL
SAN ANTONIO
HOUSTON
GALVESTON
TUCSON
LORDSBURG
LAREDO
CORPUS CHRISTI
EL PASO
BROWNSVILLE

WESTERN MILEAGE CHART

Numerals set into lines indicate mileage. Numerals above or below indicate average driving time.



AAA
AMERICAN AUTOMOBILE ASSOCIATION
WASHINGTON D.C.

U. S. Postal Regulations

(as of January 1, 1952)

Source: U. S. Post Office.

FIRST CLASS (LIMIT 70 LB.):

Letters and written and sealed matter: 3¢ for each oz., local and nonlocal, except that drop letters are subject to 2¢ for each oz. when deposited for local delivery at offices not having letter-carrier service, provided they are not collected or delivered by rural or star-route carriers.

Government postal cards: single, 2¢; double, 4¢. If they are sold in quantities of 50 or more, there is an additional charge of 10%.

Private mailing or post cards: 2¢.

AIR MAIL (LIMIT 8 OZ.):

6¢ for each oz. or fraction thereof within the continental U. S., within any Territory or possession of the U. S., or between any of the foregoing. This includes air mail to or from Alaska, Hawii, Puerto Rico, Virgin Islands of the U. S., Canton Island, Canal Zone, Guam and any other place where the U. S. mail service is in operation.

AIR PARCEL POST (OVER 8 OZ. TO 70 LB.):

The zone rates below shall apply to mailable matter of any class carried by air. Such matter shall not exceed 100 in. in length and girth combined, including written and other matter of the first class, whether sealed or unsealed. Fractions of a lb. are charged as a full lb.

Parcels weighing less than 10 lb. and measuring more than 84 in., but not more than 100 in. in length and girth combined, shall be subject to the 10-lb. rate.

Air Parcel-Post Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
First, Second & Third (to 300)	60¢	48¢
Fourth (300–600)	65¢	50¢
Fifth (600–1,000)	70¢	56¢
Sixth (1,000–1,400)	75¢	64¢
Seventh (1,400–1,800)	75¢	72¢
Eighth (over 1,800)	80¢	80¢

The eighth-zone rate shall be charged on air parcel post between the U. S. or its Territories and possessions and overseas A.P.O.'s and Fleet post offices, as well as naval vessels and commands afloat addressed in care of Fleet post offices at New York or San Francisco.

Air parcels mailed at New York, N. Y., and addressed to Puerto Rico and the Virgin Is. are subject to the seventh-zone rate.

SECOND CLASS (NO WEIGHT LIMIT):

Newspapers, magazines and other periodicals containing notice of second-class entry.

For rates for publications mailed by the publishers or registered news agents, consult local postmaster. (The total postage computed on the lb. rate now in effect and based on the bulk weight of each mailing will be increased by 10% beginning Apr. 1, 1952, by an additional 10% based on present rates beginning Apr. 1, 1953, and by an additional 10% based on present rates beginning Apr. 1, 1954.)

Transient rate for matter mailed by others than the publishers or registered news agents: 2¢ for the first 2 oz., 1¢ for each additional 2 oz. However, if the fourth-class rate is cheaper, it shall apply.

THIRD CLASS (LIMIT 8 OZ., REGULAR):

Covers mailable matter not in the first and second classes.

Regular rate: 2¢ for the first 2 oz., 1¢ for each additional oz. Books and catalogs of 24 pages or more, seeds, cuttings, bulbs, etc.: 2¢ for the first 2 oz., 1½¢ for each additional 2 oz.

Bulk rate: for $10 per year or fraction thereof, separately addressed identical pieces of third-class matter in quantities of not less than 20 lb. or of not less than 200 pieces are subject to the lb. rates of postage applicable to the entire bulk mailed at one time.

The bulk rate for miscellaneous printed matter, etc. is 14¢ for each lb., with a minimum charge of 1¢ per piece. For books and catalogs of 24 pages or more, seeds, etc., the rate is 10¢ for each lb., with a minimum charge of 1¢ per piece. (Beginning July 1, 1952, the minimum charge per piece will be 1½¢.)

Pieces of such size or form as to prevent ready facing and tying in bundles and requiring individual distributing throughout are subject to a minimum charge of 3¢ each.

FOURTH CLASS (PARCEL POST) (OVER 8 OZ.):

Merchandise, books, printed matter and all other mailable matter not in first or second class.

The zone rates below shall apply to fourth-class matter, except catalogs, books, library books, publications or records for the blind, and certain controlled circulation publications.

Limit of size: 72 in. in length and girth combined.

Limit of weight: 8 oz. to 40 lb. in first and second zones, 8 oz. to 20 lb. in third to eighth zones.

Exceptions: The following items have a size limit of 100 in. in length and girth

combined and a weight limit of 8 oz. to 70 lb.: (1) parcels sent to or from rural or star routes; (2) parcels sent to or from second-, third-, and fourth-class post offices; (3) parcels containing baby fowl, live plants, trees, shrubs, or agricultural commodities (not including manufactured products thereof); (4) parcels containing books; (5) parcels mailed between the U. S. and any Army or Fleet post office or between the U. S. and any Territory or possession of the U. S.

Fourth-Class Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
Local	$.15	$.0125
First & Second (to 150)*	.17	.0240
Third (150–300)	.17	.0350
Fourth (300–600)	.19	.0475
Fifth (600–1,000)	.21	.0675
Sixth (1,000–1,400)	.23	.0925
Seventh (1,400–1,800)	.25	.1150
Eighth (over 1,800)	.27	.1400

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

The zone rates below shall apply to individually addressed catalogs and similar printed advertising matter in bound form weighing more than 8 oz. but not exceeding 10 lb.

Catalog Zone Rates

Zone and (miles)	First lb.	Addl. lbs.
Local	$.10	$.0105
First & Second (to 150)*	.11	.0250
Third (150–300)	.12	.0300
Fourth (300–600)	.13	.0400
Fifth (600–1,000)	.15	.0550
Sixth (1,000–1,400)	.16	.0700
Seventh (1,400–1,800)	.17	.0900
Eighth (over 1,800)	.18	.1100

* In the 1st or 2nd zone, where the distance by the shortest practicable mail route is 300 mi. or more, the rate shall be the same as for the 3rd zone.

BOOKS (LIMIT 70 LB.):

Books (containing no advertising matter other than incidental announcements of books) for all zones: 8¢ first lb., 4¢ each additional lb.

LIBRARY BOOKS (LIMIT 70 LB.):

Books sent by authorized libraries to readers and when returned by such readers, for delivery within the first three zones or the state in which mailed: 4¢ first lb., 1¢ each additional lb.

SPECIAL DELIVERY AND SPECIAL HANDLING:

The prepayment of the special-delivery fee entitles mail to the most expeditious handling and transportation possible, and also entitles it to special delivery at the office of address.

Prepayment of the special-handling fee entitles fourth-class matter to the most expeditious handling, transportation and delivery possible, but not special delivery at the office of address.

Special Delivery and Special Handling

Weight	Special delivery First class	Special delivery 2nd, 3rd, 4th class	Special handling (4th class only)
Up to 2 lb.	20¢	35¢	15¢
2 to 10 lb.	35¢	45¢	20¢
Over 10 lb.	50¢	60¢	25¢

MONEY ORDERS:

Money orders for amounts from 1¢ to $100 are issued upon written application made by the remitter or his agent showing the amount of the order and the names and complete addresses of the payee and remitter. Fees are as follows:

Amount of order	Fee
$ .01 to $ 5.00	10¢
5.01 to 10.00	15¢
10.01 to 50.00	25¢
50.01 to 100.00	35¢

REGISTERED MAIL:

Fees for domestic registered mail (first-, second- and third-class matter, and sealed fourth-class matter on which postage at the first-class rate has been paid):

Indemnity limit	Fee
$ .01 to $ 5.00	$ .40
5.01 to 25.00	.55
25.01 to 50.00	.65
50.01 to 75.00	.75
75.01 to 100.00	.85
100.01 to 200.00	.95
200.01 to 300.00	1.05
300.01 to 400.00	1.15
400.01 to 500.00	1.25
500.01 to 600.00	1.35
600.01 to 700.00	1.45
700.01 to 800.00	1.55
800.01 to 900.00	1.65
900.01 to 1000.00	1.75

For registered mail having a declared value in excess of the maximum indemnity covered by the registry fee paid there shall be charged additional fees (surcharges):

When declared value exceeds maximum indemnity covered by registry fee paid—	Fee
By not over $50	2¢
By over $50 but not over $100	3¢
By over $100 but not over $200	4¢
By over $200 but not over $400	6¢
By over $400 but not over $600	7¢
By over $600 but not over $800	8¢
By over $800 but not over $1000	10¢

If the excess of the declared value over the maximum indemnity covered by the registry fee paid is $1,000 or more, the additional fees for each $1,000 or part of $1,000 on articles destined to points within the several zones applicable to fourth-class matter shall be as follows:

Zone	Fee
For local delivery or for delivery within 1st zone	12¢
For delivery within 2nd zone	14¢
For delivery within 3rd zone	16¢
For delivery within 4th zone	17¢
For delivery within 5th or 6th zones	18¢
For delivery within 7th or 8th zones	19¢

In the case of nonnegotiable securities, surcharge is based on known or estimated cost of duplication.

Registration fee for mail without intrinsic value for which no indemnity is paid: 30¢.

INSURED MAIL:

Fee for insured mail (savings bonds, stubs, etc.) treated as registered mail under special authorization by the Department: 20¢.

Fees for domestic insured mail (third- and fourth-class matter):

Indemnity limit	Fee
$ .01 to $ 5.00	5¢
5.01 to 10.00	10¢
10.01 to 25.00	15¢
25.01 to 50.00	20¢
50.01 to 100.00	30¢
100.01 to 200.00	35¢

C.O.D. MAIL:

Fees for domestic unregistered C.O.D. mail (third- and fourth-class matter and sealed domestic mail matter of any class bearing postage at the first-class rate):

Indemnity limit	Fee
$ .01 to $ 5.00	$ .30
5.01 to 10.00	.40
10.01 to 25.00	.60
25.01 to 50.00	.70
50.01 to 100.00	.80
100.01 to 150.00	.90
150.01 to 200.00	1.00

Fees for domestic registered C.O.D. mail (sealed domestic mail of any class bearing postage at the first-class rate):

Amount collectible and indemnity payable	Fee
$ .01 to $ 10.00	$ .80
10.01 to 50.00	1.10
50.01 to 100.00	1.20
100.01 to 200.00*	1.40

* Limit of collections.

When indemnity in excess of $200 is desired, the fees for domestic registered C.O.D. mail are:

Indemnity limit	Fee
$200.01 to $ 300.00	$1.50
300.01 to 400.00	1.60
400.01 to 500.00	1.70
500.01 to 600.00	1.80
600.01 to 700.00	1.90
700.01 to 800.00	2.00
800.01 to 1000.00	2.10

MISCELLANEOUS:

In registered and insured mail, a receipt card will be returned to the sender upon request. When a card is requested showing to whom and when the delivery was made, the rate is 7¢ if the request is made at the time of mailing, 15¢ if made thereafter. When a card is requested showing to whom and when the delivery was made and the address, the rate is 31¢ and must be paid at the time of mailing.

Fees for effecting delivery of domestic registered, insured, and C.O.D. mail to addressee only or to addressee or order: 20¢.

Fee for notifying sender or his representative of inability to deliver a C.O.D. article: 5¢.

A demurrage charge of 5¢ a day is collected on each C.O.D. article which the addressee fails to accept within 15 days after the first attempt to deliver or the first notice of arrival at the office of address is given.

Certificates of mailing for ordinary mail of any class and additional certificates for ordinary, registered, insured and C.O.D. mail: 1¢ for each article described thereon.

The sending of registered or insured mail to Army and Navy personnel overseas is restricted. Consult postmaster for details. C.O.D. mail cannot be sent to Navy personnel on board ships or at overseas shore stations.

FOREIGN REGULAR MAIL:

South and Central America (except European possessions), Canada, Cuba, Dominican Republic, Haiti, Andorra, Spain and Philippines: letters, 3¢ an oz. or fraction thereof; post cards, 2¢ single, 4¢ reply-paid.

Other countries: letters, 5¢ first oz., 3¢ each additional oz. or fraction thereof; post cards, 3¢ single, 6¢ reply-paid.

FOREIGN AIR MAIL:

Air-letter sheets: Air letters, consisting of sheets which can be folded into the form of an envelope and sealed, are acceptable for dispatch by air mail at a uniform rate of 10¢ each to all foreign countries. The sheets are sold at all post offices at 10¢ each. No enclosures, adhesive tape or stickers are permitted.

Letters and letter packages: *See* table for rates.

Air-Mail Rates from U. S. to Various Countries

Country	Air mail[1]	Air parcel post		
		Initial unit[2]	Addl. weight[3]	Limit, lbs.
Albania	.15	....	....	..
Algeria	.15	....	....	..
Argentina	.10	1.51	.76	44
Australia	.25	1.62	1.27	11
Austria	.15	1.05	.49	22
Bahamas	.10	.83	.14	22
Belgium	.15	.98	.43	44
Bermudas	.10	.76	.13	22
Bolivia	.10	1.08	.40	44
Brazil	.10	1.48	.64	44[4]
British Guiana	.10	1.07	.39	22
British Honduras	.10	....	....	..
Bulgaria	.15	....	....	..
Burma	.25	....	....	..
Canada[5, 6]	.06	....	....	..
Ceylon	.25	....	....	..
Chile	.10	1.31	.56	22
China[7]	.25	1.43[8]	1.08[8]	22[8]
Colombia	.10	1.21	.40	44
Costa Rica	.10	.79	.29	44
Cuba	.08	.80	.15	22[9]
Czechoslovakia	.15	.88	.48	44
Denmark	.15	.97	.47	44
Dominican Republic	.10	.86	.22	44
Ecuador	.10	1.24	.33	44
Egypt	.15	1.35	.64	22
El Salvador	.10	1.02	.26	44
Ethiopia	.25	....	....	..
Finland	.15	.88	.51	44
France	.15	1.22	.44	44
French Guiana	.10	.79	.44	11
Germany	.15	.95	.45	22
Greece	.15	1.07	.57	22
Guatemala	.10	1.01	.25	44
Haiti	.10	.72	.21	44
Honduras	.10	.78	.28	44[10]
Hong Kong	.25	1.74	1.39	22
Hungary	.15	....	....	..
Iceland	.15	.89	.33	44
India	.25	1.70	.96	22
Indonesia	.25	....	....	..
Iran	.25	....	....	..
Iraq	.25	1.47	.72	44
Ireland	.15	.97	.37	22
Israel	.25	1.42	.67	22
Italy	.15	1.08	.50	44
Jamaica	.10	....	....	..
Japan	.25	1.27	.91	22
Jordan	.25	....	....	..
Korea[11]	.25	1.37[12]	1.01[12]	22[12]
Lebanon	.25	1.22	.64	44[13]
Liberia	.25	....	....	..
Mexico	.06[5]	.64	.18	44
Morocco	.15	1.19[14]	.54[14]	44[14]
Netherlands	.15	.89	.44	44
New Zealand	.25	1.82	1.17	22
Nicaragua	.10	.80	.29	44
Norway	.15	1.02	.47	44
Pakistan	.25	1.63	.84	22
Panamá	.10	....	....	..
Paraguay	.10	....	....	..
Peru	.10	....	....	..
Philippines	.25	1.81	1.26	44[15]
Poland	.15	1.06	.52	44
Portugal	.15	.71	.44	11[16]
Rumania	.15	....	....	..
Saudi Arabia	.25	1.56[17]	.77[17]	22[17]
Spain	.15	1.21	.45	11
Surinam	.10	.92	.41	44
Sweden	.15	.85	.49	44
Switzerland	.15	.92	.46	44
Syria	.25	1.22	.64	44[18]
Thailand	.25	2.29	1.50	22
Turkey	.15	1.15	.57	44
U. of S. Africa	.25	1.31	.94	11
U.S.S.R.	.15	1.66	.63	22
United Kingdom	.15	1.00	.41	22
Uruguay	.10	1.26	.76	44
Venezuela	.10	1.27	.36	44
Yugoslavia	.15	.87	.52	44

[1] For letters and letter packages. Unless otherwise indicated, rate shown is per each ½ oz., and weight is limited to 4 lb., 6 oz. For rates for commercial papers, printed matter, samples of merchandise, small packets, 8-oz. merchandise packages, combination packages and articles grouped together, consult local postmaster. [2] Rate for 4 oz. or fraction thereof. [3] Rate for each additional 4 oz. or fraction thereof. [4] Parcels for Brazil exceeding 22 lb. accepted for following offices only: Belem (Para), Belo Horizonte, Florianopolis, Fortaleza, Manaus, Pelotas, Porto Alegre, Recife (Pernambuco), Rio de Janeiro, Rio Grande (Rio Grande do Sul), Salvador (Bahia), Santos and Sao Paulo. [5] Per oz.; post cards each 4c. [6] Articles limited to 60 lb. in weight. [7] Registered and ordinary articles in regular mails for Island of Formosa (Taiwan) will be accepted for air transmission to destination. Ordinary (unregistered) articles for all other destinations in China, including Manchuria and Mongolia, prepaid at air-mail rate will be accepted for transmission by air to Hong Kong and onward transmission by surface means. [8] Air parcel post for China is temporarily suspended. [9] Parcels for Cuba weighing 8 oz. or less should not have customs declarations or parcel-post stickers attached. [10] Parcels for Honduras exceeding 22 lb. accepted for following offices only: Amapala, Comayagua, La Ceiba, Olanchito, Progreso, Puerto Castilla, Puerto Cortez, San Pedro Sula, Tegucigalpa and Tela. [11] Service limited to ordinary (unregistered) air-mail letters, post cards and air-letter sheets. [12] Service suspended. [13] Parcels for Lebanon exceeding 11 lb. not accepted for following offices: Ain-Zahlta, Baino, Falougha, Hammana, Koubayat, Maaser-el-Chouf, Ras-Baalbeck and Souk-el-Gharb. [14] French zone only. [15] Parcels for cities of Baguio, Caloocan, Cebu, Davao, Iloilo, Mandaluyong, Manila, Zamboanga, and municipality of Tacloban in Province of Leyte may weigh up to 44 lb. For weight of parcels destined to other places, see Postal Bulletin of Oct. 12, 1950. [16] Limit to Lisbon is 22 lb. [17] Air parcels for Saudi Arabia limited to post offices of Dhahran, Hassa, Katif, Khobar, Rastannura and Riyadh only. [18] Limit to Chaba and Sakhad is 11 lb.; limit to Bloudan, Tel Ablad and Yabroud is 22 lb. NOTE: For rates to countries not shown in this table, consult local postmaster. Leaders (....) indicate that there is no air-parcel-post service to the country.

The Postmaster General's staff consists of the Deputy Postmaster General, the Assistant Postmasters General, the Administrative Assistant to the Postmaster General, the Solicitor, the Chief Post Office Inspector, the Executive Assistant to the Postmaster General, the Chief Clerk and Director of Personnel, the Comptroller, and the Purchasing Agent. The Deputy Postmaster is Chairman.



ACQUISITION OF TERRITORY BY THE UNITED STATES

THE RISE OF THE UNITED STATES

by ARTHUR M. SCHLESINGER, SR.
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1. Under the English Flag

The land now comprehended within the United States once belonged to Spain, France, England, Holland and Sweden. Spain, colonizing from Mexico in the sixteenth and seventeenth centuries, expanded over most of the Gulf Coast, Texas and the border zone westward through California. France, moving down from Canada in the eighteenth century, annexed the Mississippi Valley from the Appalachians to the Rockies. Meanwhile, in the seventeenth century, the English began peopling the Atlantic shore, and finding the Dutch already established in the present New York and the Swedes in Delaware, seized their possessions.

Notwithstanding this varied international background, United States history has been largely the product of influences emanating from the seaboard communities. Unlike the Spanish and French, the English regarded their colonies as genuine extensions of the homeland, and the settlers sowed English customs, institutions and speech so thoroughly that they eventually spread everywhere. True, the transplanted ways underwent modification, but this arose from necessities imposed by a wilderness existence and, as time went on, from a growing sense of self-sufficiency.

Organized settlement began in 1607 at Jamestown, where the first representative assembly was set up in 1619. The Pilgrims followed at Plymouth in 1620, spearheading a much larger migration of Puritans into New England. Later in the century the Quakers occupied a midway region owned by William Penn, making Philadelphia their headquarters and fanning out in every direction. By 1700 all the thirteen colonies existed but the southernmost, Georgia, which came into being in 1733. The settlers crossed the ocean to escape economic, religious and political oppression and to start anew in a land of greater opportunity.

In time, other strains reinforced the original English population: French Huguenots, Scotch Irish, Germans and minor groups, including the Dutch and Swedes already on hand. African slaves, first introduced at Jamestown in 1619, were welcomed in all the colonies, though the economic need for them was greater in the South, and the system took deeper root there than elsewhere. The people in the North engaged mainly in small farming, fishing and commerce, the Southerners largely in plantation production. Everywhere the colonists practiced self-government. When they clashed with the English-appointed governors, the colonists usually won out by withholding appropriations.

As the population penetrated farther inland, the settlers encountered the French guarding Canada and the eastern fringes of the Mississippi Valley. In a succession of wars (1689–1763), paralleling greater struggles between the parent nations abroad, France was finally ejected from North America and Britain's dominion extended to the Mississippi. Spain fell heir to the country west of the river, though some years later Napoleon was temporarily to reclaim it for France.

2. Birth of the Nation

With the removal of the Gallic menace the colonists felt less dependent upon the mother country militarily, and England's change from her former policy of "salutary neglect" aroused active resentment. A series of revenue measures, starting with the Sugar Act of 1764, provoked meetings of protest, nonimportation pacts and mob demonstrations in America. Colonial home rule was at stake, also freedom of trade, and the provincials appealed to the principle: "No taxation without representation." Parliament's action in 1774 penalizing all Massachusetts for the deed of a few in dumping dutied tea into Boston Harbor led to the first armed clash at Concord and Lexington on April 19, 1775; but a year and more passed before the patriots resolved upon the hazardous step of independence. The famous Declaration of July 4, 1776, penned by Thomas Jefferson for the Second Continental Congress, justified revolution as the only means to guarantee the "unalienable Rights" of "Life, Liberty and the pursuit of Happiness." Under George Washington as commander in chief the fighting shifted from New England into the middle states and then into the south. General Gates's victory at Saratoga on October 17, 1777, brought England's ancient enemy, France, into the war; just four years later the British yielded to the Allies at Yorktown. The Peace Treaty in 1783 recognized the United States as stretching to the Mississippi.

The infant, though born and baptized, had yet to be weaned. The league of states, formed under the Articles of Confederation in 1781, proved too weak either to deal effectively with foreign countries, or to raise necessary funds, or to ensure unrestricted domestic trade. Within the states, however, Revolutionary idealism prompted action to forbid primogeniture and tax-supported religions, and the Northern commonwealths abolished slavery, a prohibition which Congress's Ordinance of 1787 extended to the territory north of the Ohio. Feebleness of government, combined

with social disturbances culminating in Shays's Rebellion in Massachusetts, made sober men tremble for the sanctity of property rights and seemed to cloud the nation's future. The Federal Convention, summoned in 1787, designed a new framework after much wrangling between rival interests and sections.

The Constitution established a government of three separate and co-ordinate departments—legislative, executive and judicial—each endowed with adequate power, and each to serve as a check and balance on the others. Within its own sphere the general government was supreme, and it exerted its will not through state officials, as under the Articles of Confederation, but immediately upon individuals. Direct popular representation was limited to the House of Representatives, the Senate being chosen by the legislatures (a system which lasted till 1913), the President designated by Electors (who in practice, however, quickly lost their deliberative function), and the Supreme Court appointed by the President and Senate for life. Opposed in many states because of its centralizing and undemocratic features, the Constitution eventually won adoption on the assurance that a bill of rights would be added to preclude federal interference with civil liberties such as freedom of speech, the press and religion. The first ten amendments, in 1791, fulfilled the promise.

Perhaps no convention would have ratified the Constitution if it had been realized that an indivisible Union would ensue. The framers, engaged in the practical task of curing the defects of the Confederation government, strewed phrases through the document that had contradictory implications. On the basis of the text it was possible for equally honest men to maintain that the states were more powerful than the nation, or that the nation overtopped the states. At one time or other nearly every legislature, given what it considered sufficient provocation, asserted the right of nullification or secession. Short of such extreme doctrines, controversy began almost immediately over the question of whether the Constitution should be construed broadly to enhance the national authority or narrowly to lessen it.

Under George Washington, President from 1789 to 1797, the new government became a going concern. Congress, guided by Secretary of the Treasury Alexander Hamilton, buttressed the public credit by arranging to pay at par the national debt and the war-incurred state debts and by creating a United States Bank modeled upon the Bank of England. These measures, especially the last, alarmed Jefferson, veteran liberal and Washington's Secretary of State. Fearing that the legislation would build up a dangerous moneyed class, he urged a strict interpretation of the Constitution in opposition to Hamilton's loose-construction views. The French Revolution widened the breach, for the Jeffersonian Democrats applauded as an upsurge of liberty what the Federalists dreaded as an irruption of chaos. But both men, knowing America's defenseless state, backed Washington's decision to maintain neutrality in France's war with England. Returned to power under John Adams, the Federalists in 1798, however, declared naval hostilities against France and passed the Alien and Sedition Acts to muzzle opposition criticism. Though Adams, defying his party, prevented a full-scale war, he lost the election of 1800 to Jefferson. The Federalists never saw office again.

3. Democracy and Nationalism

The farming interest, which Jefferson deemed the bulwark of free government, had steadily increased since the Revolution. As settlers trekked inland, new states joined the original thirteen: Vermont, Kentucky and Tennessee in the 1790's, with Ohio and others shortly to follow. Western pioneer life begot an intense individualism, fostered political and economic democracy, stimulated nationalism. In the South, by contrast, Eli Whitney's invention of the cotton gin in 1793 opened the way for plantation agriculture and Negro slavery to expand westward beyond the Mississippi. The growth of manufacturing in the Northeast introduced a third element into the scene. The rivalries of these sectional forces wove the principal strands of American history until the Civil War. Toward the mid-century the situation was further confused by the spread of manhood suffrage and a sudden mass immigration from Ireland and Germany.

Jefferson inaugurated the "Virginia Dynasty," his eight years giving way to two terms each of James Madison and James Monroe. He performed his greatest service by purchasing Louisiana from Napoleon in 1803, an act which, though violating his constitutional scruples, carried the flag to the Rockies and vastly enlarged the agricultural domain. With France and England again locked in conflict, depredations on American commerce gave constant provocation to war, but the peace-loving Jefferson applied economic sanctions in the form of an embargo keeping merchantmen at home. Such measures failed, however, and under Madison in 1812 Congress, goaded by the Warhawks, mostly Westerners, declared war on England. Unlike France, she had compounded her offenses by impressing American sailors and, moreover, lay exposed to land attack in Canada. But the assaults on Canada miscarried, and Britain's attempts at counter-invasion with veterans freed by Napoleon's defeat in 1814 fared little better. Unhappily, An-

drew Jackson's victory at New Orleans on January 8, 1815, occurred two weeks too late to affect the Peace Treaty of Ghent, which settled none of the prewar disputes.

Nevertheless the war experience greatly accelerated American nationalism. In 1816 Congress enacted the first protective tariff and chartered a new United States Bank on the model of Hamilton's. In 1819 the country acquired the Gulf region from Spain, who chose to sell rather than have it seized. In 1823 the President, prompted by successful revolutions in Latin America, proclaimed the Monroe Doctrine, warning Europe to keep hands off this new area of freedom.

Other events, however, prefigured growing sectional discord. Opposition to admitting Missouri as a slave state was ended in 1820 only by Congress's agreeing that the rest of the Louisiana Purchase north of the parallel marking her southern boundary should be free soil. Successive tariffs alienated Southerners as class legislation discriminating against their welfare. Tutored by the astute South Carolinian, John C. Calhoun, they refurbished the doctrine of state rights as defensive armor. John Quincy Adams's administration (1825–1829) did nothing to improve conditions, and the advent of his successor, Jackson, precipitated a crisis.

Old Hickory, as indomitable in peace as in war, acted boldly against divisive tendencies, whether from the slavocracy or the money power. When South Carolina nullified the Tariff of 1832, he prepared for military action, whereupon the state accepted Congress's olive branch of a lower scale of duties. He smote financial privilege by destroying the Second United States Bank, which wielded monopolistic control over the nation's credit facilities. After eight years Jackson's lieutenant, Martin Van Buren, took over, but a business depression following the Panic of 1837 so discredited his administration that in 1840 the Whigs uproariously elected William Henry Harrison in the famous log-cabin campaign. He died after a month in office, however, and the Whigs fared hardly better with his unintended successor, John Tyler, whose strict-constructionist predilections foiled their plan to establish a third national bank.

Within the free states these years witnessed a ceaseless ferment of humanitarian agitation: crusades for public education, temperance, prison reform, labor's rights, women's rights. Humane people, viewing slavery as an anachronism and a sin, formed organizations to urge its abolition. The moderate-minded, content with demanding its exclusion from the territories, founded a series of unsuccessful parties, beginning with the election of 1840. The South, frightened by these threats to its cherished institution, found little good in any of the movements and regarded the restless North with mounting apprehension.

4. Sectional Conflict

Western expansionist zeal plus the Southern desire for more slave territory elected James K. Polk over his Whig rival, Henry Clay, in 1844. When the outgoing Congress executed the Democratic pledge to annex Texas, Polk proceeded to high-pressure England into partitioning the jointly held Oregon country at the forty-ninth parallel, and in 1846, while that was still under way, contrived a war with Mexico to acquire California and the territory eastward to Texas. American forces quickly overran northern Mexico and California, but a fiercely contested march from Veracruz through the mountains to Mexico City proved necessary before Polk achieved his goal in the Treaty of Guadalupe Hidalgo early in 1848.

The conquests approximately completed the present continental boundaries. The immediate effect, however, was to arouse sectional dissention over the question of slavery in the new Southwest. Zachary Taylor, elected by the Whigs in 1848, died in office after sixteen months, leaving the crisis in the lap of Millard Fillmore. The Compromise of 1850, piloted through Congress by Henry Clay, admitted California as a free state, left slavery in Utah and New Mexico territories to future judicial determination, and disposed of other disputes. But the settlement soon turned into unsettlement, for Fillmore's Democratic successors, Franklin Pierce and James Buchanan, supported pro-Southern policies.

The Kansas-Nebraska Act of 1854, authorizing slavery by "popular sovereignty" in the country just west of Missouri and Iowa, outraged Northerners as a base repudiation of the historic Missouri Compromise. Guerrilla warfare followed in Kansas, while in the free states the old-time antislavery elements joined with dissident Whigs and Democrats to organize the Republican party. The Republicans insisted that slavery be kept out of all federal territories. Angry contests on the floors of Congress operated like a war of nerves, convincing each side that the other was plotting its ruin. John Brown's insane attempt in 1859 to incite a servile insurrection merely poured oil on the flames. When the Republicans in 1860 elected Abraham Lincoln over a divided Democratic opposition, eleven slave states, appealing to state-rights principles, seceded and established the Confederate States of America.

For the hostilities that ensued, the North possessed the long-run advantage

of superior economic resources and man power, but before these could come into play, the South hoped to win by military prowess and perhaps by the intervention of England, which needed Southern cotton. England, however, never went quite so far, and the Southern authorities failed also to reckon with the inspired leadership of President Lincoln, who taught his people that the preservation of the Union involved not only their country's future but the democratic hope everywhere. While the North went about establishing a blockade by sea, the Confederates under Robert E. Lee brilliantly repulsed repeated land attacks on their capital, Richmond, and countered with battles on Northern soil at Antietam in 1862 and Gettysburg in 1863. But in the west they steadily lost ground until the Union forces late in 1864 swept around the southern tip of the mountains into Lee's rear and, by a pincers movement with Ulysses S. Grant before Richmond, brought final defeat the following April. As soon as military fortunes favored, Lincoln under his war powers proclaimed the emancipation of slaves in all unconquered states and districts, and the Thirteenth Amendment in 1865 universalized the decree. America at long last had caught up with the preamble of the Declaration of Independence.

Even prior to his re-election in 1864, Lincoln "with malice toward none" announced a plan to ease the return of the Southern states to their former place in the Union; but before much could be accomplished, his assassination in April, 1865, brought into office Andrew Johnson, who shared his views of reconstruction without his gifts of persuasion. Over Johnson's vetoes the radical Republicans adopted a punitive program. They imposed military rule upon the South, impeached and almost ousted the President, and exacted ratification of the Fourteenth and Fifteenth Amendments before readmitting the last states in 1870. These amendments were designed to make the freedman a full-fledged citizen and voter. Even so, federal bayonets kept Northern-controlled carpetbag governments in power for several years more.

5. Business and Government

Already the Republicans were changing from a humanitarian party to one of conservative business. The war gave an immense stimulus to economic life, speeding the construction of railways, the exploitation of minerals and other resources, the development of large-scale manufacturing, the accumulation of wealth, and bringing to the fore great captains of industry and finance, who naturally turned for favors to the dominant party. Despite economic depressions after the Panics of 1873 and 1893, this alliance of business and politics governed the country almost uninterruptedly for the rest of the century, putting successively into office Grant (for eight years), Rutherford B. Hayes, James A. Garfield, Chester A. Arthur (for Garfield's unexpired term), Benjamin Harrison and William McKinley (for two terms).

In the Hayes-Tilden election of 1876, however, the Republicans nearly came to grief, partly because of revelations of widespread graft in Grant's second administration, and partly because of disputed electoral returns from the surviving carpetbag states. A special commission, created by Congress, decided for Hayes by a strictly partisan vote. The Democrats actually won eight years later, the voters preferring Grover Cleveland to James G. Blaine, whom they suspected of political corruption. Cleveland, though defeated in 1888, triumphed again in 1892 largely because the Republicans had claimed too much for the beneficence of tariff protection. The Republicans avoided other disasters by harping upon Democratic disloyalty during the Civil War ("waving the bloody shirt") and by catering to the Northern veterans' vote with generous pensions.

Conservative Republicanism met its principal difficulties in Congress, where the Western members, supported usually by Southern Democrats, uneasily resisted capitalistic domination. The Farther West, peopling rapidly after the war, gave a fresh dimension to the nation. Thanks to the attractions of precious minerals, cattle raising and free homesteads, this last frontier yielded steadily to settled communities, and between 1876 and 1896 eight additional states entered the Union. A new sectionalism emerged in politics, for Western needs and aspirations differed at many points from those of the East. The wage earners, too, feared the growing power of Big Business, but despite mounting numbers they lacked political representation and hence concentrated on trade-union methods, forming the American Federation of Labor in 1881. The two depression periods produced violent strikes and upheavals. Labor, however, prevailed upon Congress to place restraints on immigration in order to discourage competition by underpaid workers, especially from Southern and Eastern Europe.

Legislative struggles nearly always pivoted on issues affecting the new industrial order. The problem of greenback inflation, arising from the war, was finally settled to Eastern satisfaction by the Resumption Act of 1875. The drive for higher and yet higher protection succeeded with occasional reverses until the Dingley Tariff in 1897 set a record. Congress under Western pressure took ineffective steps in 1887 and 1890 to regulate railways and business combinations, and it made some early concessions also to the Western de-

mand for free silver. During the Panic of 1893, however, Cleveland induced Congress to stop the inflation; and after the silverites, capturing the Democratic convention in 1896, failed to elect their nominee, William Jennings Bryan, the Republicans reduced silver to a minor coin and committed the country to the gold standard.

Foreign relations reflected similar tendencies, for the expanding industrial system demanded new markets, openings for investment and sources of raw materials. Cleveland withstood imperialistic sentiment, and in 1898 the McKinley administration intervened in the Cuban insurrection under the whip of popular anger at Spanish methods of repression and the explosion of the battleship *Maine* in Havana Harbor. Spain was quickly routed not only in the West Indies but also in her possessions off Asia. Though the "splendid little war" was prompted less by Wall Street than by a superheated sensational press, it bore fruit in the annexation of Puerto Rico, the Philippines and Guam, and brought businessmen further advantages through the quasi protectorate imposed on Cuba (later extended to other Caribbean countries). About the same time Hawaii and American Samoa were acquired, and Secretary of State John Hay's "open door" policy promised a growing trade with China. Theodore Roosevelt, raised to the presidency by McKinley's assassination in September, 1901, further advanced the cause by abetting a revolution against Colombia, thereby assuring the construction of the Panama Canal and much shorter distances within the colonial empire.

In domestic politics, however, Roosevelt aligned himself with the rising sentiment against business-dominated government, preaching with gusto the doctrine of the "square deal," and in his seven years breaking ground for later and more substantial advances. Despite party reactionaries he put teeth into the enforcement of the Antitrust Act of 1890, bullied Congress into tightening control over railroads and industrial monopolies, and initiated measures for conserving the nation's natural resources. William Howard Taft, his choice as successor, quietly pursued similar policies; but Taft's endorsement of the steep Payne-Aldrich Tariff together with other missteps so embittered the reformers that, failing to prevent his renomination in 1912, they organized the Progressive party to run their idol "Teddy" again. The Democrats, facing a divided opposition, elected their candidate, Woodrow Wilson.

Superbly endowed intellectually, and gifted with Jefferson's power to express democratic aspirations, Wilson proceeded with magisterial authority to climax the earlier efforts at reform. The Underwood Tariff enacted the lowest rates since the Civil War; the Federal Reserve Act superseded an outworn national banking system; and the Clayton Act created the Federal Trade Commission to stop "unfair methods of competition." Two other measures, launched by popular demand during World War I, involved changes in the Constitution. The Eighteenth Amendment in 1920 enacted national prohibition, which ran its stormy course in thirteen years and required the Twenty-first for its undoing. The Nineteenth Amendment (1920) extended to all women the suffrage which in some states they already possessed.

6. World War and After

With America a neutral in 1914 when the European struggle began, the administration's chief energies turned to the protection of maritime rights. Wilson and his countrymen, hating war and traditionally isolationist, only gradually perceived the threat to national security if a militaristic Germany should supplant Britain as mistress of the Atlantic; but Berlin's revival of ruthless submarine operations a few months after Wilson's second election clarified men's minds. Congress, stirred by his appeal that "The world must be made safe for democracy," declared war on April 6, 1917. The government, racing against time, swiftly put the nation on a battle footing, enacting universal conscription, taking over the railways, and regimenting industry, labor and agriculture. It was the country's introduction to total war. In the summer of 1918 Yankee troops under General John J. Pershing helped repulse a great German drive on the Marne and in September shared in the mighty Meuse-Argonne counteroffensive, which ended the struggle on November 11.

At the Paris Peace Conference, Wilson fought stubbornly for the democratic settlement he had earlier outlined under Fourteen Points, but gained principally his proposal of a League of Nations, which he saw as a sort of continuing peace conference. At home the Republican-controlled Senate, whipping up isolationist sentiment, completed his rout, for when Wilson spurned efforts to amend the treaty, that body under the two-thirds requirement rejected it by a minority vote. The tide was turning from wartime idealism to what Warren G. Harding, overwhelmingly elected by the Republicans in 1920, called "normalcy." Disclosures of corruption in high government circles hastened Harding's death, elevating Calvin Coolidge, who renewed his presidency by election a year later and was followed in 1929 by Herbert Hoover. All three, while keeping out of the League, nevertheless co-operated with some of its minor activities and, on their own, concluded a number of collective treaties for temporary naval disarmament and the outlawry of war.

These part-way steps were offset, however, by an upsurge of economic nationalism: a skyward trend of protective duties, a relaxing of controls over giant corporations, and a quota limitation on European immigration. "Rugged individualism" produced the dizziest prosperity the country had ever known, only to collapse in 1929 into the worst depression ever known. Hoover, striving vainly to repair the damage, met abject defeat in 1932 at the hands of the socially minded Franklin D. Roosevelt, who pledged a "new deal" by the Democrats. Under Roosevelt's thrilling leadership Congress, casting precedent to the winds, voted billions for relief, "primed the pump" of business and agriculture to hasten recovery, and inaugurated long-range reforms to increase foreign trade through reciprocal tariff reductions, reorganize banking practices, safeguard trade-union activities, guarantee minimum wages, destroy electrical holding companies, and provide for social insurance and a government-planned development of the Tennessee Valley.

7. World War Again

Toward Latin America Franklin Roosevelt adopted the "good neighbor" policy, relinquishing the Caribbean protectorates and transforming the Monroe Doctrine into a mutual nonaggression pact. As further evidence of the retreat from imperialism, Congress made provision for Philippine freedom in 1946. Relations with other parts of the world, however, posed increasing problems. As the Axis dictators and their Oriental partner, Japan, began overrunning weaker peoples, Congress under isolationist influences directed Roosevelt, against his wish, to embargo munition sales to both victim and assailant; but public opinion forced a lifting of the ban after England and France in September, 1939, took up arms against Nazi aggression. Hitler's subjugation of France the following June emboldened Roosevelt to more active steps, for crippled England now alone defended the Atlantic from totalitarian domination. Congress at his behest voted vast sums for rearmament and adopted peacetime conscription, and Roosevelt, without consulting Congress, gave England fifty destroyers in exchange for a string of naval bases off North America.

Isolationists, mostly Republicans, denounced Roosevelt's "warmongering," while he, still clinging to measures "short of war," stressed insistently the gathering dangers to the American way of life—to freedom of speech, freedom of worship, freedom from want and freedom from fear. The people responded by choosing him in 1940 as their first third-term President. In March, 1941, he secured adoption of the lend-lease plan and soon began using the navy to safeguard the supplies en route. Before matters reached a crisis, the Japanese war lords, irked by America's stiffening attitude toward their own conquests and gambling upon an Axis victory in Europe, treacherously attacked Pearl Harbor on December 7, clearing the way for the seizure of Guam, the Philippines and two of the Aleutians, as well as many Dutch and British holdings. Within four days Germany and Italy declared war against the United States.

America quickly girded herself for the mightiest struggle in history. Enlarging upon Wilson's wartime methods, the government completely reorganized the national economy for an unparalleled output of arms and food. By summer, sea, land and air forces were attacking the enemy all over the globe. In May, 1943, after bitter fighting, Anglo-American armies expelled the Axis from North Africa, then invaded southern Italy and forced the government's submission in September, though the Nazis there kept up the fight. Landing in Normandy in June, 1944, the Allies under Dwight D. Eisenhower's supreme command battered their way through France and across the Rhine, while the Russians pounded the Nazis from the east. On May 7, 1945, Germany unconditionally surrendered. The Pacific war was no less desperately contested; but the Allies, based on Australia, slowly won control of the sea and, pressing onward from island to island, hastened Japan's unconditional surrender on August 14, 1945, by loosing the atomic bomb and by Soviet Russia's last-minute entry into the conflict.

World War II was at an end, but what would be the nature of the peace? The Atlantic Charter, signed in August, 1941, by Roosevelt and Churchill and later agreed to by all the Allies, pledged them against "aggrandizement, territorial or other," but subsequent conferences by the major powers—at Cairo, Teheran, Yalta, Potsdam and elsewhere—foreshadowed a different outcome. Russia in particular demanded substantial territorial advantages. In July, 1946, the Allies gathered at Paris to draw up terms for Italy and the Axis satellites: Rumania, Bulgaria, Hungary and Finland. Germany and Japan, under armed occupation, were reserved for later handling.

Without waiting for final military victory, fifty countries, at Roosevelt's initiative and with bipartisan support in America, had set up a successor to the League: the United Nations. Roosevelt, elected a fourth time in 1944, died suddenly on April 12, 1945, several weeks too soon to assist in framing the charter at San Francisco.

His successor, Harry S. Truman, urged a broadened New Deal under the name Fair Deal but met with limited success, partly because of a coalition of Republi-

cans and Southern Democrats in Congress, partly because of mounting world crises. His tax program, accentuated by growing national-defense requirements, was considerably altered; and his labor program was defeated by the enactment, over his veto, of the Taft-Hartley law. In spite of strong Republican opposition, the rise of a States' Rights Democratic party in the South, and poll predictions of certain defeat, Truman was the people's choice in 1948. The Twenty-second Amendment, ratified during his second administration and limiting Presidents to two terms or ten years, did not apply to him.

Domestic affairs became secondary to increasingly acute world problems involving communism. As more nations came under Soviet domination, the concept of "One World" dimmed. A new policy, designed to contain communism within its existing limits and to prevent its spread by aggression, was evolved. Under this, the United States gave military and economic aid to Greece and Turkey, implemented the Marshall Plan with billions of dollars to speed European recovery and to halt the growth of communism, fostered the regeneration of Western Germany, negotiated the North Atlantic Defense Pact, and assisted Western Europe militarily. When Tito and Yugoslavia broke with the U.S.S.R. and the Cominform, the United States rendered economic aid.

In advancing its policies both before and after these American-sponsored measures, Moscow embarked upon the Cold War. Its blockade of Berlin necessitated the successful Anglo-American Airlift. It backed Communist activities in European countries, nursed rebellions in Asia and sabotaged the United Nations by its use of the veto. A peak of its offensive was reached when it supported North Korea and Red China with arms in their invasion of South Korea. This action caused the United States to co-operate with the United Nations in a massive police action, under General Douglas MacArthur, against the Reds. In spite of Russian opposition, a peace treaty was also concluded with Japan. The Republicans, abandoning the World War II bipartisan foreign policy, attacked the State Department and Secretary Dean Acheson, and seized upon Truman's recall of MacArthur for insubordination as the occasion for a senatorial investigation of Far Eastern policy.

During the tense period of the Cold War, American Communist-party leaders were convicted of conspiring against the United States, and several persons were found guilty of supplying Russia with atom-bomb secrets.

Definitions

Bicameral System—That form of government which consists of two separate houses or chambers in which the concurrence of both is necessary to the enactment of legislation. Adopted to act as a check upon hasty or ill-considered legislation.

Bloc—Originally a French term meaning mass and adopted in America to apply to a group of Congressmen who band together beyond party allegiances for a common cause. The most popularized bloc in America is the Agricultural Bloc.

Cloture (or closure)—A means of putting a stop to "filibustering" in which a two-thirds vote by the Senate followed by a petition of at least 16 members limits debate upon a bill to one hour and forces thereby an early vote.

Dark Horse—The emergence of a politically unknown figure in a closely contested nomination to receive the laurels. Some famous dark horses were Polk, Harding and Willkie.

Diplomatic Immunity—The exemption of a foreign diplomat, his staff and premises, from civil suit, arrest, taxation, search or seizure.

Gerrymander—A practice of laying out electoral districts to insure the majority of votes for the party in power. The term is a corruption of a district which had the appearance of a salamander but which was called after the name of the then Governor Elbridge Gerry of Massachusetts in 1812.

Proportional Representation—A system of minority representation in proportion to the relative strength of a group. Voters indicate their choice by number in order of preference in such a manner that each party gets approximately the same proportion of legislators as their party vote bears to the total vote cast.

Recall—A procedure for the removal of a public official from his office by a vote of the people, and usually only after he has served at least six months of his office.

Referendum—The process of submitting to the people for vote any change in the Constitution, whether it be of the State or the Nation.

Senatorial Courtesy—A tacit agreement between the members of the Senate to follow the lead of those Senators representing the State in approvals or disapprovals of Presidential nominations for vacant positions. The rule is not applied to cabinet positions.

Unicameral—Pertaining to a legislative body that has only one body. In the United States the only State that operates under the Unicameral system is Nebraska.

HOW A PRESIDENT IS ELECTED

Selection of Delegates

NOT A WORD APPEARS IN THE CONstitution about nominating a candidate for President, but hardly has one Chief Executive been inaugurated before the country begins its great national guessing game—who are likely to be the candidates by the time of the next presidential election?

Actually the eventual choice of a candidate involves ponderous machinery. First, at full dress meetings some months before, the national committees decide the time and place of the conventions. Before the conventions meet each party selects delegates from every state and territory.

The Democrats allow each state twice as many delegates as the state has senators and representatives; the party has allowed four additional delegates from each state that went Democratic in the election of 1944. The Democrats also allow six delegates each to Puerto Rico, the District of Columbia, Alaska, Hawaii and the Canal Zone and two to the Virgin Islands.

The Republicans allot each state four delegates-at-large and two each for each Representative-at-large, as well as three additional delegates if the state went Republican in the previous presidential or senatorial election. In addition, each congressional district within the state that cast 1,000 Republican votes at the last election is permitted a delegate, with an additional delegate if that district cast 10,000 votes. The Republicans further allot two delegates to Puerto Rico and three to the District of Columbia; Alaska and Hawaii also get three delegates plus two if the territorial delegate to Congress is Republican.

Each party provides for the selection of an equal number of alternates to serve in the absence of regular delegates. Delegates are chosen differently in different states, mostly by party primary but in some cases by party conventions.

The Conventions

At each convention a temporary chairman is chosen, usually to deliver the party's keynote speech. After a credentials committee seats the various delegates, a permanent chairman is elected. The convention then votes on a platform, drawn up by the platform committee.

By the third or fourth day, presidential nominations begin. The chairman calls the roll of states alphabetically. A state may place a candidate in nomination or yield to another state.

Voting, again alphabetically by voice vote, begins after all nominations have been made and seconded. A simple majority is required in each party, although this may require many ballots. Then, the vice presidential candidate is selected; he must come from a different state, since electors must vote for a President or a Vice President (either one) not a resident of his own state. A President and Vice President must not come from one state.

The Electoral College

The next step in the process is the nomination of electors in each state, according to its laws. These electors must not be federal office holders. In the November election, the voters cast their votes for electors, not for President. In some states, the ballots include only the names of the presidential and vice presidential candidates; in others, they include only names of the electors. Nowadays, it is rare for electors to be split between parties. The last such occurrence was in Tennessee in 1948; the last before that, in West Virginia in 1916. On three occasions (1824, 1876 and 1888), the candidate with the largest popular vote failed to obtain an electoral-vote majority.

Each state has as many electors as it has United States Senators and members of the House of Representatives. There are 96 Senators and 435 Representatives, a total of 531 electoral votes, of which 266 are needed to win.

On the first Monday after the second Wednesday in December, the electors cast their votes in their respective state capitols. Constitutionally they may vote for someone other than the party candidate but practically they cannot since they are pledged to one party and its candidate on the ballot. Should the presidential or vice presidential candidate die during the interval between the November popular vote and the December meetings, new choices may be made to fill the tickets by the national committees or by conventions called by them. The votes of the electors, certified by the states, are sent to Congress where the President of the Senate opens the certificates and has them counted in the presence of both Houses in January. The new President is inaugurated at noon on January 20.

Should no candidate receive a majority of the electoral vote for President, the House of Representatives chooses a President from among the three highest candidates, voting, not as individuals, but as states, with a majority (now 25) needed to elect. Should no vice presidential candidate obtain the majority, the Senate, voting as individuals, chooses from the highest two.

U. S. National Conventions Since 1856

Date	Party	Where held	Nominated	Vote
June 17, 1856	R	Philadelphia	John C. Frémont	520
June 2, 1856	D	Cincinnati	James Buchanan	296
May 16, 1860	R	Chicago	Abraham Lincoln	364
April 23, 1860	D	Charleston & Baltimore	S. A. Douglas	181
June 7, 1864	R	Baltimore	Abraham Lincoln	Unanimous
Aug. 29, 1864	D	Chicago	Geo. B. McClellan	202½
May 20, 1868	R	Chicago	U. S. Grant	Unanimous
July 4, 1868	D	New York City	Horatio Seymour	Unanimous
June 5, 1872	R	Philadelphia	U. S. Grant	Unanimous
June 9, 1872	D	Baltimore	Horace Greeley	688
June 14, 1876	R	Cincinnati	R. B. Hayes	384
June 28, 1876	D	St. Louis	S. J. Tilden	508
June 2, 1880	R	Chicago	J. A. Garfield	399
June 23, 1880	D	Cincinnati	W. S. Hancock	705
June 3, 1884	R	Chicago	J. G. Blaine	541
July 11, 1884	D	Chicago	Grover Cleveland	683
June 19, 1888	R	Chicago	Benjamin Harrison	544
June 6, 1888	D	St. Louis	Grover Cleveland	By acclamation
June 7, 1892	R	Minneapolis	Benjamin Harrison	535⅙
June 21, 1892	D	Chicago	Grover Cleveland	617½
June 16, 1896	R	St. Louis	William McKinley	661½
July 7, 1896	D	Chicago	William J. Bryan	500
June 19, 1900	R	Philadelphia	William McKinley	Unanimous
July 4, 1900	D	Kansas City	William J. Bryan	By acclamation
June 21, 1904	R	Chicago	Theodore Roosevelt	Unanimous
July 6, 1904	D	St. Louis	Alton B. Parker	678
June 16, 1908	R	Chicago	William H. Taft	702
July 7, 1908	D	Denver	William J. Bryan	892½
June 18, 1912	R	Chicago	William H. Taft	561
June 25, 1912	D	Baltimore	Woodrow Wilson	990
June 7, 1916	R	Chicago	Charles E. Hughes	949½
June 14, 1916	R	St. Louis	Woodrow Wilson	By acclamation
June 8, 1920	R	Chicago	Warren G. Harding	692⅛
June 28, 1920	D	San Francisco	James M. Cox	732½
June 10, 1924	R	Cleveland	Calvin Coolidge	1,065
June 24, 1924*	D	New York City	John W. Davis	839†
June 12, 1928	R	Kansas City	Herbert Hoover	837
June 26, 1928	D	Houston	Alfred E. Smith	849½
June 14, 1932	R	Chicago	Herbert Hoover	1,126½
June 27, 1932	D	Chicago	F. D. Roosevelt	945
June 9, 1936	R	Cleveland	Alfred M. Landon	984
June 23, 1936	D	Philadelphia	F. D. Roosevelt	By acclamation
June 24, 1940	R	Philadelphia	Wendell L. Willkie	Unanimous
July 15, 1940	D	Chicago	F. D. Roosevelt	Unanimous
June 26, 1944	R	Chicago	Thomas E. Dewey	1,056
July 19, 1944	D	Chicago	F. D. Roosevelt	1,086–90
June 21, 1948	R	Philadelphia	Thomas E. Dewey	1,094–0
July 12, 1948	D	Philadelphia	Harry S. Truman	947½–263½
July 17, 1948	(‡)	Birmingham	J. Strom Thurmond	By acclamation
July 22, 1948	P	Philadelphia	Henry A. Wallace	By acclamation

* In session until July 10, 1924. † Nominated on 103d ballot. ‡ States' Rights delegates from 13 Southern states.

Earlier Conventions

For most of the elections before 1832, presidential candidates were nominated by a Congressional caucus. The first national nominating convention in American history was held by the Antimasonic party on Sept. 26, 1831, in Baltimore. On Dec. 12 of the same year, the National Republican party (which was to become the Whig party about 1834) held a national convention in Baltimore and nominated Clay and Sergeant. On May 21, 1832, the Democratic party held a national convention in Baltimore to nominate a candidate for Vice President to run with Jackson. Van Buren was the nominee.

Up to the disappearance of the Whig party after its bad defeat in 1852, Whig conventions were held in Harrisburg, Pa., in 1839, in Baltimore in 1844 and 1852, and in Philadelphia in 1848; none was held in 1836; instead regional meetings placed three anti-Jacksonian candidates on the ballot.

Other Democratic conventions were held in Baltimore in 1835, 1840, 1844, 1848 and 1852.

Presidential Elections, 1789 to 1948

The Constitution does not provide for the popular election of either the President or Vice President. It merely states that they shall be chosen by electors who shall be chosen in a manner prescribed by the state legislatures. No set of popular vote returns is complete or entirely significant until 1872, because that was the first election in which all electors were chosen by popular vote. By referring to the returns in 1876 and 1888, it can be seen that the candidate with the greatest popular vote is not necessarily elected.

Year	Presidential candidates	Party	Electoral vote
1789[1,2]	George Washington	(no party)	69
	John Adams	(no party)	34
	Scattering	(no party)	35
	Votes not cast		8
1792[1]	George Washington	Federalist	132
	John Adams	Federalist	77
	George Clinton	Anti-Federalist	50
	Thomas Jefferson	Anti-Federalist	4
	Aaron Burr	Anti-Federalist	1
	Votes not cast		6
1796[1]	John Adams	Federalist	71
	Thomas Jefferson	Dem.-Rep.	68
	Thomas Pinckney	Federalist	59
	Aaron Burr	Dem.-Rep.	30
	Scattering		48
1800[1,3]	Thomas Jefferson	Dem.-Rep.	73
	Aaron Burr	Dem.-Rep.	73
	John Adams	Federalist	65
	Charles C. Pinckney	Federalist	64
	John Jay	Federalist	1

[1] For the original method of electing the President and the Vice President, *see* Article II, Section 1, of the Constitution. [2] Only 10 states participated in the election. The New York legislature chose no electors, and North Carolina and Rhode Island had not yet ratified the Constitution. [3] As Jefferson and Burr were tied, the House of Representatives chose the President. In a vote by states, 10 votes were cast for Jefferson and 4 for Burr. Two votes were not cast.

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1804[1]	Thomas Jefferson	Dem.-Rep.	162	George Clinton	Dem.-Rep.	162
	Charles C. Pinckney	Federalist	14	Rufus King	Federalist	14
1808	James Madison	Dem.-Rep.	122	George Clinton	Dem.-Rep.	113
	Charles C. Pinckney	Federalist	47	Rufus King	Federalist	47
	George Clinton	Dem.-Rep.	6	John Langdon	Ind. (no party)	9
	Votes not cast		1	James Madison	Dem.-Rep.	3
				James Monroe	Dem.-Rep.	3
				Votes not cast		1
1812	James Madison	Dem.-Rep.	128	Elbridge Gerry	Dem.-Rep.	131
	De Witt Clinton	Federalist	89	Jared Ingersoll	Federalist	86
	Votes not cast		1	Votes not cast		1
1816	James Monroe	Dem.-Rep.	183	Daniel D. Tompkins	Dem.-Rep.	183
	Rufus King	Federalist	34	John E. Howard	Federalist	22
	Votes not cast		4	James Ross	Ind. (no party)	5
				John Marshall	Federalist	4
				Robert G. Harper	Ind. (no party)	3
				Votes not cast		4
1820	James Monroe	Dem.-Rep.	231	Daniel D. Tompkins	Dem.-Rep.	218
	John Quincy Adams	Ind. (no party)	1	Richard Stockton	Ind. (no party)	8
	Votes not cast		3	Daniel Rodney	Ind. (no party)	4
				Richard Rush	Ind. (no party)	1
				Robert G. Harper	Ind. (no party)	1
				Votes not cast		3
1824[2]	John Quincy Adams	(no party)	84	John C. Calhoun	(no party)	182
	Andrew Jackson	(no party)	99	Nathan Sanford	(no party)	30
	William H. Crawford	(no party)	41	Nathaniel Macon	(no party)	24
	Henry Clay	(no party)	37	Andrew Jackson	(no party)	13
				Martin Van Buren	(no party)	9
				Henry Clay	(no party)	2
				Votes not cast		1
1828	Andrew Jackson	Democratic	178	John C. Calhoun	Democratic	171
	John Quincy Adams	Natl. Rep.	83	Richard Rush	Natl. Rep.	83
				William Smith	Democratic	7
1832	Andrew Jackson	Democratic	219	Martin Van Buren	Democratic	189
	Henry Clay	Natl. Rep.	49	John Sergeant	Natl. Rep.	49
	John Floyd	Ind. (no party)	11	Henry Lee	Ind. (no party)	11
	William Wirt[3]	Antimasonic	7	Amos Ellmaker	Antimasonic	7
	Votes not cast		2	William Wilkins	Ind. (no party)	30
				Votes not cast		2
1836	Martin Van Buren	Democratic	170	Richard M. Johnson[4]	Democratic	147
	William H. Harrison	Whig	73	Francis Granger	Whig	77
	Hugh L. White	Whig	26	John Tyler	Democratic	47
	Daniel Webster	Whig	14	William Smith	Ind. (no party)	23
	W. P. Mangum	Ind. (no party)	11			

Year	Presidential candidates	Party	Electoral vote	Vice-presidential candidates	Party	Electoral vote
1840	William H. Harrison[5]	Whig	234	John Tyler	Whig	234
	Martin Van Buren	Democratic	60	Richard M. Johnson	Democratic	48
				L. W. Tazewell	Ind. (no party)	11
				James K. Polk	Democratic	1
1844	James K. Polk	Democratic	170	George M. Dallas	Democratic	170
	Henry Clay	Whig	105	Theo. Frelinghuysen	Whig	105
1848	Zachary Taylor[6]	Whig	163	Millard Fillmore	Whig	163
	Lewis Cass	Democratic	127	William O. Butler	Democratic	127
1852	Franklin Pierce	Democratic	254	William R. King	Democratic	254
	Winfield Scott	Whig	42	William A. Graham	Whig	42
1856	James Buchanan	Democratic	174	John C. Breckinridge	Democratic	174
	John C. Frémont	Republican	114	William L. Dayton	Republican	114
	Millard Fillmore	American[7]	8	A. J. Donelson	American[7]	8
1860	Abraham Lincoln	Republican	180	Hannibal Hamlin	Republican	180
	John C. Breckinridge	Democratic	72	Joseph Lane	Democratic	72
	John Bell	Const. Union	39	Edward Everett	Const. Union	39
	Stephen A. Douglas	Democratic	12	H. V. Johnson	Democratic	12
1864	Abraham Lincoln[8]	Republican	212	Andrew Johnson	Republican	212
	George B. McClellan	Democratic	21	G. H. Pendleton	Democratic	21
1868	Ulysses S. Grant	Republican	214	Schuyler Colfax	Republican	214
	Horatio Seymour	Democratic	80	Francis P. Blair, Jr.	Democratic	80
	Votes not counted[9]		23	Votes not counted[9]		23

[1] The first election in which the electors voted for President and Vice President on separate ballots. (*See* Amendment XII to the Constitution.) [2] As no candidate had an electoral-vote majority, the House of Representatives chose the President from the first three. In a vote by states, 13 votes were cast for Adams, 7 for Jackson, and 4 for Crawford. [3] The Antimasonic party, on Sept. 26, 1831, was the first party to hold a nominating convention to choose candidates for President and Vice President. [4] As Johnson did not have an electoral-vote majority, the Senate chose him 33-14 over Granger, the others being legally out of the race. [5] Harrison died Apr. 4, 1841, and Tyler succeeded him Apr. 6. [6] Taylor died July 9, 1850, and Fillmore succeeded him July 10. [7] Also known as the Know-Nothing party. [8] Lincoln died Apr. 15, 1865, and Johnson succeeded him the same day. [9] 23 Southern electoral votes were excluded.

Year	Presidential candidates	Party	Electoral vote	Popular vote[1]	Vice-presidential candidates and party
1872	Ulysses S. Grant	Republican	286	3,597,132	Henry Wilson—R
	Horace Greeley	Dem., Liberal Rep.	(2)	2,834,125	B. Gratz Brown—D, LR—(47)
	Thomas A. Hendricks	Democratic	42		Scattering—(19)
	B. Gratz Brown	Dem., Liberal Rep.	18		Votes not counted—(14)
	Charles J. Jenkins	Democratic	2		
	David Davis	Democratic	1		
	Votes not counted		17		
1876[3]	Rutherford B. Hayes	Republican	185	4,033,768	William A. Wheeler—R
	Samuel J. Tilden	Democratic	184	4,285,992	Thomas A. Hendricks—D
	Peter Cooper	Greenback	0	81,737	Samuel F. Cary—G
1880	James A. Garfield[4]	Republican	214	4,449,053	Chester A. Arthur—R
	Winfield S. Hancock	Democratic	155	4,442,035	William H. English—D
	James B. Weaver	Greenback	0	308,578	B. J. Chambers—G
1884	Grover Cleveland	Democratic	219	4,911,017	Thomas A. Hendricks—D
	James G. Blaine	Republican	182	4,848,334	John A. Logan—R
	Benjamin F. Butler	Greenback	0	175,370	A. M. West—G
	John P. St. John	Prohibition	0	150,369	William Daniel—P
1888	Benjamin Harrison	Republican	233	5,440,216	Levi P. Morton—R
	Grover Cleveland	Democratic	168	5,538,233	A. G. Thurman—D
	Clinton B. Fisk	Prohibition	0	249,506	John A. Brooks—P
	Alson J. Streeter	Union Labor	0	146,935	Charles E. Cunningham—UL
1892	Grover Cleveland	Democratic	277	5,556,918	Adlai E. Stevenson—D
	Benjamin Harrison	Republican	145	5,176,108	Whitelaw Reid—R
	James B. Weaver	People's[5]	22	1,041,028	James G. Field—Peo
	John Bidwell	Prohibition	0	264,133	James B. Cranfill—P
1896	William McKinley	Republican	271	7,035,638	Garret A. Hobart—R
	William J. Bryan	Dem., People's[5]	176	6,467,946	Arthur Sewall—D—(149)
					Thomas E. Watson—Peo—(27)
	John M. Palmer	Natl. Dem.	0	133,148	Simon B. Buckner—ND
	Joshua Levering	Prohibition	0	132,007	Hale Johnson—P

Year	Presidential candidates	Party	Electoral vote	Popular vote[1]	Vice-presidential candidates and party
1900	William McKinley[6]	Republican	292	7,219,530	Theodore Roosevelt—R
	William J. Bryan	Dem., People's[5]	155	6,358,071	Adlai E. Stevenson—D, Peo
	John G. Woolley	Prohibition	0	208,914	Henry B. Metcalf—P
	Eugene V. Debs	Social Democratic	0	94,768	Job Harriman—SD
1904	Theodore Roosevelt	Republican	336	7,628,834	Charles W. Fairbanks—R
	Alton B. Parker	Democratic	140	5,084,491	Henry G. Davis—D
	Eugene V. Debs	Socialist	0	402,400	Benjamin Hanford—S
	Silas C. Swallow	Prohibition	0	258,536	George W. Carroll—P
	Thomas E. Watson	People's	0	117,183	Thomas H. Tibbles—Peo
1908	William H. Taft	Republican	321	7,679,006	James S. Sherman—R
	William J. Bryan	Democratic	162	6,409,106	John W. Kern—D
	Eugene V. Debs	Socialist	0	420,820	Benjamin Hanford—S
	Eugene W. Chafin	Prohibition	0	253,840	Aaron S. Watkins—P
	Thomas L. Hisgen	Independence	0	82,872	John T. Graves—I
1912	Woodrow Wilson	Democratic	435	6,286,214	Thomas R. Marshall—D
	Theodore Roosevelt	Progressive	88	4,126,020	Hiram Johnson—Prog
	William H. Taft	Republican	8	3,483,922	Nicholas M. Butler—R[7]
	Eugene V. Debs	Socialist	0	897,011	Emil Seidel—S
	Eugene W. Chafin	Prohibition	0	206,275	Aaron S. Watkins—P
1916	Woodrow Wilson	Democratic	277	9,129,606	Thomas R. Marshall—D
	Charles E. Hughes	Republican	254	8,538,221	Charles W. Fairbanks—R
	A. L. Benson	Socialist	0	585,113	G. R. Kirkpatrick—S
	J. Frank Hanly	Prohibition	0	220,506	Ira Landrith—P
1920	Warren G. Harding[8]	Republican	404	16,152,200	Calvin Coolidge—R
	James M. Cox	Democratic	127	9,147,353	Franklin D. Roosevelt—D
	Eugene V. Debs	Socialist	0	917,799	Seymour Stedman—S
	P. P. Christensen	Farmer-Labor	0	265,411	Max S. Hayes—FL
	Aaron S. Watkins	Prohibition	0	189,408	D. Leigh Colvin—P
1924	Calvin Coolidge	Republican	382	15,725,016	Charles G. Dawes—R
	John W. Davis	Democratic	136	8,385,586	Charles W. Bryan—D
	Robert M. LaFollette	Progressive, Socialist	13	4,822,856	Burton K. Wheeler—Prog S
1928	Herbert Hoover	Republican	444	21,392,190	Charles Curtis—R
	Alfred E. Smith	Democratic	87	15,016,443	Joseph T. Robinson—D
	Norman Thomas	Socialist	0	267,420	James H. Maurer—S
1932	Franklin D. Roosevelt	Democratic	472	22,821,857	John N. Garner—D
	Herbert Hoover	Republican	59	15,761,841	Charles Curtis—R
	Norman Thomas	Socialist	0	884,781	James H. Maurer—S
	William Z. Foster	Communist	0	102,991	James W. Ford—C
	William D. Upshaw	Prohibition	0	81,869	Frank S. Regan—P
1936	Franklin D. Roosevelt	Democratic	523	27,751,597	John N. Garner—D
	Alfred M. Landon	Republican	8	16,679,583	Frank Knox—R
	William Lemke	Union	0	882,479	Thomas C. O'Brien—U
	Norman Thomas	Socialist	0	187,720	George Nelson—S
	Earl Browder	Communist	0	80,159	James W. Ford—C
1940	Franklin D. Roosevelt	Democratic	449	27,244,160	Henry A. Wallace—D
	Wendell L. Willkie	Republican	82	22,305,198	Charles L. McNary—R
	Norman Thomas	Socialist	0	100,264	Maynard C. Krueger—S
1944	Franklin D. Roosevelt[9]	Democratic	432	25,602,504	Harry S. Truman—D
	Thomas E. Dewey	Republican	99	22,006,285	John W. Bricker—R
	Norman Thomas	Socialist	0	80,426	Darlington Hoopes—S
1948	Harry S. Truman	Democratic	303	24,105,695	Alben W. Barkley—D
	Thomas E. Dewey	Republican	189	21,969,170	Earl Warren—R
	J. Strom Thurmond	States' Rights Dem.	39	1,169,021	Fielding L. Wright—SR
	Henry A. Wallace	Progressive	0	1,156,103	Glen Taylor—Prog
	Norman Thomas	Socialist	0	139,009	Tucker P. Smith—S
	Claude A. Watson	Prohibition	0	103,216	Dale Learn—Proh

[1] For those candidates receiving over 75,000 votes. [2] Greeley died Nov. 29, 1872, before his 66 electors voted. In the electoral balloting for President, 63 of Greeley's votes were scattered among Hendricks, Brown, Jenkins and Davis; the other 3, included in "Votes not counted," were cast for Greeley by electors from Georgia. This was the first election in which every state chose its electors by popular vote. [3] After the voting of the electoral college, Tilden had 184 undisputed votes, and Hayes 163. However, 22 other votes were in doubt, because two sets of electoral ballots were received from South Carolina, Louisiana, Florida and Oregon. For each of the three Southern states, one set was completely Democratic, the other completely Republican. For Oregon, one set gave all 3 of the state's votes to Hayes, the other gave one of the votes to Tilden. To settle the dispute, Congress created an Electoral Commission on Jan. 29, 1877. This Commission, consisting of 5 Supreme Court justices, 5 senators and 5 representatives (8 Republicans and 7 Democrats), gave the 22 votes in question to Hayes. [4] Garfield died Sept. 19, 1881, and Arthur succeeded him Sept. 20. [5] The members of the People's party were known as Populists. [6] McKinley died Sept. 14, 1901, and Roosevelt succeeded him the same day. [7] James S. Sherman, Republican candidate for Vice President, died Oct. 30, 1912, and the Republican electoral votes were cast for Butler. [8] Harding died Aug. 2, 1923, and Coolidge succeeded him Aug. 3. [9] Roosevelt died Apr. 12, 1945, and Truman succeeded him the same day.

Presidential Election of 1928

Source: Secretaries of State of the several states from records filed with the House of Representatives.

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Democratic—Alfred E. Smith, New York; Joseph T. Robinson, Arkansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; Jeremiah D. Crowley, New York.

Prohibition—William F. Varney, New York; James A. Edgerton, Virginia.

Workers—William Z. Foster, Illinois; Benjamin Gitlow, New York.

State	Total	Rep.	Dem.	Plur.	Electoral R	Electoral D	Soc.	Soc. Lab.*	Prohib.	Others†
Alabama	248,982	120,725	127,797	7 072 D	..	12	460	.....	.....	.....
Arizona	91,254	52,533	38,537	13,996 R	3	..	.....	.....	.....	184
Arkansas	197,693	77,751	119,196	41,445 D	..	9	429	.....	.....	317
California	1,796,656	1,162,323	614,365	547,958 R	13	..	19,595	.....	.....	373
Colorado	392,242	253,872	133,131	120,741 R	6	..	3,472	.....	.....	1,767
Connecticut	553,031	296,614	252,040	44,574 R	7	..	3,019	622	.....	736
Delaware	105,891	68,860	36,643	32,217 R	3	..	329	.....	.....	59
Florida	253,674	144,168	101,764	42,404 R	6	..	4,036	.....	.....	3,706
Georgia	229,159	63,498	129,602	66,104 D	..	14	124	.....	.....	35,935
Idaho	154,230	99,848	53,074	46,774 R	4	..	1,308	.....	.....	.....
Illinois	3,107,489	1,769,141	1,313,817	455,324 R	29	..	19,138	1,812	.....	3,581
Indiana	1,421,314	848,290	562,691	285,599 R	15	..	3,871	645	5,496	321
Iowa	1,009,362	623,818	378,936	244,882 R	13	..	2,960	230	.....	3,418
Kansas	713,200	513,672	193,003	320,669 R	10	..	6,205	.....	.....	320
Kentucky	940,604	558,064	381,070	176,994 R	13	..	837	340	.....	293
Louisiana	215,833	51,160	164,655	113,495 D	..	10	.....	.....	.....	18
Maine	262,171	179,923	81,179	98,744 R	6	..	1,068	.....	.....	1
Maryland	528,348	301,479	223,626	77,853 R	8	..	1,701	906	.....	636
Massachusetts	1,577,827	775,566	792,758	17,192 D	..	18	6,262	773	.....	2,468
Michigan	1,372,082	965,396	396,762	568,634 R	15	..	3,516	799	2,728	2,881
Minnesota	970,976	560,977	396,451	164,526 R	12	..	6,774	1,921	.....	4,853
Mississippi	151,692	27,153	124,539	97,386 D	..	10	.....	.....	.....	.....
Missouri	1,500,721	834,080	662,562	171,518 R	18	..	3,739	340	.....	.....
Montana	194,108	113.300	78,578	34,722 R	4	..	1,667	.....	.....	563
Nebraska	547,138	345,745	197,959	147,786 R	8	..	3,434	.....	.....	.....
Nevada	32,417	18,327	14,090	4,237 R	3	..	.....	.....	.....	.....
New Hampshire	196,747	115,404	80,715	34,689 R	4	..	455	.....	.....	173
New Jersey	1,549,381	926,050	616,517	309,533 R	14	..	4,897	500	160	1,257
New Mexico	118,014	69,645	48,211	21,434 R	3	..	.....	.....	.....	158
New York	4,466,072	2,193,344	2,089,863	103,481 R	45	..	107,332	4,211	.....	71,322
North Carolina	636,070	348,992	287,078	61,914 R	12	..	.....	.....	.....	.....
North Dakota	239,867	131,441	106,648	24,793 R	5	..	842	.....	.....	936
Ohio	2,508,346	1,627,546	864,210	763,336 R	24	..	8,683	1,515	3,556	2,836
Oklahoma	618,427	394,046	219,174	174,872 R	10	..	3,924	.....	.....	1,283
Oregon	319,942	205,341	109,223	96,118 R	5	..	2,720	1,564	.....	1,094
Pennsylvania	3,150,615	2,055,382	1,067,586	987,796 R	38	..	18,647	380	3,880	4,740
Rhode Island	242,784	117,522	118,973	1,451 D	..	5	.....	416	.....	5,873
South Carolina	68,605	3,188	62,700	59,512 D	..	9	47	.....	.....	2,670
South Dakota	261,865	157,603	102,660	54,943 R	5	..	443	.....	.....	1,159
Tennessee	363,473	195,388	167,343	28,045 R	12	..	631	.....	.....	111
Texas	708,999	367,036	341,032	26,004 R	20	..	722	.....	.....	209
Utah	176,604	94,618	80,985	13,633 R	4	..	954	.....	.....	47
Vermont	135,191	90,404	44,440	45,964 R	4	..	.....	.....	338	9
Virginia	305,358	164,609	140,146	24,463 R	12	..	250	180	.....	173
Washington	500,840	335,844	156,772	179,072 R	7	..	2,615	4.068	.....	1,541
West Virginia	642,752	375,551	263,784	111,767 R	8	..	1,313	.....	1,703	401
Wisconsin	1,016,872	544,205	450,259	93,946 R	13	..	18,213	381	2,245	1,569
Wyoming	84,496	52,748	29,299	23,449 R	3	..	788	.....	.....	1,661
Total	36,879.414	21,392,190	15,016,443	6,375,747 R	444	87	267,120	21 603	20,106	161,652

* Labor party in Maryland; Industrial party in Minnesota; Industrialist party in Pennsylvania.
† Breakdown of other votes: Workers 48.770; Anti-Smith 38,541; Farmer-Labor 6,390; void or scattering votes 60,700; blank or defective ballots 7,251.

Presidential Election of 1932

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.

Republican—Herbert Hoover, California; Charles Curtis, Kansas.

Socialist—Norman Thomas, New York; James H. Maurer, Pennsylvania.

Socialist Labor—Verne L. Reynolds, New York; John W. Aiken, Massachusetts.

Prohibition—William D. Upshaw, Georgia; Frank S. Regan, Illinois.

Communist—William Z. Foster, Illinois; James W. Ford, New York.

Liberty—W. H. Harvey, Arkansas; F. B. Hemenway, Washington.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Soc. Lab.*	Prohib.	Others†
Alabama	245,034	207,910	34,675	173,235 D	11	..	2,030	.....	13	406
Arizona	118,251	79,264	36,104	43,160 D	3	..	2,618	.....	.....	265
Arkansas	220,562	189,602	28,467	161,135 D	9	..	1,269	.....	.....	1,224
California	2,266,972	1,324,157	847,902	476,255 D	22	..	63,299	.....	20,637	10,977
Colorado	457,696	250,877	189,617	61,260 D	6	..	13,591	427	1,928	1,256
Connecticut	594,207	281,632	288,420	6,788 R	..	8	20,480	2,287	.....	1,388
Delaware	112,901	54,319	57,073	2,754 R	..	3	1,376	.....	.....	133
Florida	276,252	206,307	69,170	137,137 D	7	..	775	.....	.....	.....
Georgia	255,590	234,118	19,863	214,255 D	12	..	461	.....	1,125	23
Idaho	186,520	109,479	71,312	38,167 D	4	..	526	.....	.....	5,203
Illinois	3,407,926	1,882,304	1,432,756	449,548 D	29	..	67,258	3,638	6,388	15,582
Indiana	1,576,927	862,054	677,184	184,870 D	14	..	21,388	2,070	10,399	3,832
Iowa	1,036,687	598,019	414,433	183,586 D	11	..	20,467	.....	2,111	1,657
Kansas	791,978	424,204	349,498	74,706 D	9	..	18,276	.....	.....	.....
Kentucky	983,063	580,574	394,716	185,858 D	11	..	3,853	1,396	2,252	272
Louisiana	268,804	249,418	18,853	230,565 D	10	..	.....	.....	.....	533
Maine	298,444	128,907	166,631	37,724 R	..	5	2,489	255	.....	162
Maryland	511,054	314,314	184,184	130,130 D	8	..	10,489	1,036	.....	1,031
Massachusetts	1,580,114	800,148	736,959	63,189 D	17	..	34,305	2,668	1,142	4,892
Michigan	1,664,628	871,700	739,894	131,806 D	19	..	39,205	1,401	2,893	9,535
Minnesota	1,002,843	600,806	363,959	236,847 D	11	..	25,476	.....	.....	12,602
Mississippi	146,034	140,168	5,180	134,988 D	9	..	686	.....	.....	.....
Missouri	1,609,894	1,025,406	564,713	460,693 D	15	..	16,374	404	2,429	568
Montana	216,479	127,286	78,078	49,208 D	4	..	7,891	.....	.....	3,224
Nebraska	570,135	359,082	201,177	157,905 D	7	..	9,876	.....	.....	.....
Nevada	41,430	28,756	12,674	16,082 D	3	..	.....	.....	.....	.....
New Hampshire	205,520	100,680	103,629	2,949 R	...	4	947	.....	.....	264
New Jersey	1,630,063	806,630	775,684	30,946 D	16	..	42,998	1,062	774	2,915
New Mexico	151,606	95,089	54,217	40,872 D	3	..	1,776	.....	.....	524
New York	4,753,698	2,534,959	1,937,963	596,996 D	47	..	177,397	10,339	.....	93,040
North Carolina	711,501	497,566	208,344	289,222 D	13	..	5,591	.....	.....	.....
North Dakota	256,290	178,350	71,772	106,578 D	4	..	3,521	.....	.....	2,647
Ohio	2,610,088	1,301,695	1,227,679	74,016 D	26	..	64,094	1,968	7,421	7,231
Oklahoma	704,633	516,468	188,165	328,303 D	11	..	.....	.....	.....	.....
Oregon	368,751	213,871	136,019	77,852 D	5	..	15,450	1,730	.....	1,681
Pennsylvania	2,859,002	1,295,948	1,453,540	157,592 R	..	36	91,119	659	11,319	6,417
Rhode Island	266,170	146,604	115,266	31,338 D	4	..	3,138	433	183	546
South Carolina	104,407	102,347	1,978	100,469 D	8	..	82	.....	.....	.....
South Dakota	288,438	183,515	99,212	84,303 D	4	..	1,551	.....	463	3,697
Tennessee	390,638	259,817	126,806	133,011 D	11	..	1,786	.....	1,995	234
Texas	863,426	760,348	97,959	662,389 D	23	..	4,450	.....	.....	669
Utah	206,579	116,750	84,795	31,955 D	4	..	4,087	.....	.....	947
Vermont	136,980	56,266	78,984	22,718 R	..	3	1,533	.....	.....	197
Virginia	297,942	203,979	89,637	114,342 D	11	..	2,382	.....	1,843	101
Washington	614,814	353,260	208,645	144,615 D	8	..	17,080	1,009	1,540	33,280
West Virginia	743,774	405,124	330,731	74,393 D	8	..	5,133	.....	2,342	444
Wisconsin	1,114,815	707,410	347,741	359,669 D	12	..	53,379	494	2,672	3,119
Wyoming	96,962	54,370	39,583	14,787 D	3	..	2,829	.....	.....	180
Totals	39,816,522	22,821,857	15,761,841	7,060,016 D	472	59	884,781	33,276	81,869	232,838

* Industrialist party in Pennsylvania.

† Breakdown of other votes: Communist 102,991; Liberty 53,425; Farmer-Labor 7,309; National 1,645; Industrialist (Minn.) 770; Jobless 725; Independent 533; Jacksonian 104; void or scattering 65,396.

Presidential Election of 1936

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; John N. Garner, Texas.
Republican—Alfred M. Landon, Kansas; Frank Knox, Illinois.
Socialist—Norman Thomas, New York; George Nelson, Wisconsin.
Prohibition—D. Leigh Colvin, New York; Claude A. Watson, California.
Communist—Earl Browder, Kansas; James W. Ford, New York.
Union—William Lemke, North Dakota; Thomas C. O'Brien, Massachusetts.
Socialist Labor—John W. Aiken, Massachusetts; Emil F. Teichert, New York.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Prohib.	Comm.	Others*
Alabama	275,744	238,196	35,358	202 838 D	11	..	242	719	678	551
Arizona	124,163	86,722	33,433	53,289 D	3	..	317	384	....	3,307
Arkansas	179,423	146,765	32,039	114,726 D	9	..	446	.....	169	4
California	2,638,882	1,766,836	836,431	930,405 D	22	..	11,331	12,917	10,877	490
Colorado	488,676	295,021	181,267	113,754 D	6	..	1,593	.....	497	10 298
Connecticut	690,783	382,189	278,685	103,504 D	8	..	5,683	.....	1,193	23,033
Delaware	127,603	69,702	54,014	15,688 D	3	..	172	.....	51	3,664
Florida	327,365	249,117	78,248	170,869 D	7	..	.....	.....	.....	.....
Georgia	293,178	255,364	36,942	218,422 D	12	..	68	663	.....	141
Idaho	199,623	125,683	66,256	59,427 D	4	..	.....	.....	.....	7,684
Illinois	3,956,522	2,282,999	1,570,393	712,606 D	29	..	7,530	3,439	801	91,360
Indiana	1,650,897	934,974	691,570	243,404 D	14	..	3,856	.....	1,090	19,407
Iowa	1,142,733	621,756	487,977	133,779 D	11	..	1,373	1,182	506	29,939
Kansas	865,013	464,520	397,727	66,793 D	9	..	2,766	.....	.....	.....
Kentucky	926,206	541,944	369,702	172,242 D	11	..	632	929	204	12,795
Louisiana	329,778	292,894	36,791	256,103 D	10	..	.....	.....	.....	93
Maine	304,240	126,333	168,823	42,490 R	...	5	783	334	257	7,710
Maryland	624,896	389,612	231,435	158,177 D	8	..	1,629	.....	915	1,305
Massachusetts	1,840,357	942,716	768,613	174,103 D	17	..	5,111	1,032	2,930	119 955
Michigan	1,805,093	1,016,794	699,733	317,061 D	19	..	8,208	579†	3,384	76,395
Minnesota	1,129,975	698,811	350,461	348,350 D	11	..	2,872	.....	2,574	75,257
Mississippi	162,090	157,318	4,443	152,875 D	9	..	329	.....	.....	.....
Missouri	1,828,635	1,111,043	697,891	413,152 D	15	..	3,454	908	417	14,922
Montana	230,512	159,690	63,598	96,092 D	4	..	1,066	224	385	5,549
Nebraska	608,032	347,454	247,731	100,323 D	7	..	.....	.....	.....	12,847
Nevada	43,848	31,925	11,923	20,002 D	3	..	.....	.....	.....	.....
New Hampshire	218,114	108,460	104,642	3,798 D	4	..	.....	.....	193	4,819
New Jersey	1,820,437	1,083,850	720,322	363,528 D	16	..	3,931	926	1,639	9,769
New Mexico	168,920	105,838	61,710	44,128 D	3	..	343	62	43	924
New York	5,596,398	3,293,222‡	2,180,670	837,628 D	47	..	86,897	.....	35,609	.....
North Carolina	839,462	616,141	223,283	392,858 D	13	..	21	.....	11	6
North Dakota	273,716	163,148	72,751	90,397 D	4	..	552	197	360	36,708
Ohio	3,012,425	1,747,122	1,127,709	619,413 D	26	..	117	.....	5,251	132,226
Oklahoma	749,740	501,069	245,122	255,947 D	11	..	2,221	1,328	.....	.....
Oregon	414,021	266,733	122,706	144,027 D	5	..	2,143	4	104	22,331
Pennsylvania	4,138,105	2,353,788	1,690,300	663,488 D	36	..	14,375	6,691	4,060	68,891
Rhode Island	311,149	165,233	125,012	40,221 D	4	..	.....	.....	411	20,493
South Carolina	115,437	113.791	1,646	112,145 D	8	..	.....	.....	.....	.....
South Dakota	296,452	160,137	125,977	34,160 D	4	..	.....	.....	.....	10,388
Tennessee	475,571	327,083	146,516	180,567 D	11	..	685	632	319	296
Texas	843,482	734,485	103,874	630,611 D	23	..	1,075	514	253	3,281
Utah	216,677	150,246	64,555	85,691 D	4	..	432	43	280	1,121
Vermont	143,689	62,124	81,023	18,899 R	...	3	.....	.....	405	137
Virginia	334,590	234,980	98,336	136,644 D	11	..	313	594	98	269
Washington	692,338	459,579	206,892	252,687 D	8	..	3,496	1,041	1,907	19,423
West Virginia	830,073	502,582	325,486	177,096 D	8	..	832	1,173	.....	.....
Wisconsin	1,258,712	802,984	380,828	422,156 D	12	..	10,626	1,071	2,197	61,006
Wyoming	103,332	62,624	38,739	23,885 D	3	..	200	75	91	1,653
Total	45,647,117	27,751,597	16,679,583	10,797,030 D	523	8	187,720	37,661	80,159	910,337

* Breakdown of other votes: Union (including Royal Oak, Independent, and Third) 882,479; Socialist Labor (including Labor, Industrial, and Independent Labor) 12,802; National Union for Social Justice 9,407; Independent Republican 3,222; Christian 1,598; scattering 889.

† Commonwealth votes.

‡ Includes 274,924 American Labor votes.

Presidential Election of 1940

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Henry A. Wallace, Iowa.

Republican—Wendell L. Willkie, New York; Charles L. McNary, Oregon.

Socialist—Norman Thomas, New York; Maynard C. Krueger, Illinois.

Prohibition—Roger W. Babson, Massachusetts; Edgar V. Moorman, Illinois.

Communist—Earl Browder, Kansas; James W. Ford, New York.

Socialist Labor—John W. Aiken, Massachusetts; Aaron M. Orange, New York.

State	Total	Dem.	Rep.	Plur.	Electoral D	Electoral R	Soc.	Prohib.	Comm.	Others*
Alabama	294,219	250,726	42,184	208,542 D	11	..	100	700	509	.....
Arizona	150,039	95,267	54,030	41,237 D	3	..	.....	742	.....	.....
Arkansas	201,838	158,622	42,122	116,500 D	9	..	301	793	.....	.....
California	3,268,791	1,877,618	1,351,419	526,199 D	22	..	.....	9,400	13,586	16,768
Colorado	549,004	265,554	279,576	14,022 R	...	6	1,899	1,597	378	.....
Connecticut	781,502	417,621	361,819†	55,802 D	8	..	.....	.....	1,091	971
Delaware	136,374	74,599	61,440	13,159 D	3	..	115	220	.....	.....
Florida	485,492	359,334	126,158	233,176 D	7	..	.....	.....	.....	.....
Georgia	312,553	265,194	23,934	241,260 D	12	..	.....	983	.....	22,442
Idaho	235,168	127,842	106,553	21,289 D	4	..	497	.....	276	.....
Illinois	4,217,935	2,149,934	2,047,240	102,694 D	29	..	10,914	9,190	.....	657
Indiana	1,782,747	874,063	899,466	25,403 R	...	14	2,075	6,437	.....	706
Iowa	1,215,430	578,800	632,370	53,570 R	...	11	.....	2,284	1,524	452
Kansas	860,297	364,725	489,169	124,444 R	...	9	2,347	4,056	.....	.....
Kentucky	970,063	557,222	410,384	146,838 D	11	..	1,014	1,443	.....	.....
Louisiana	372,305	319,751	52,446	267,305 D	10	..	.....	.....	.....	103
Maine	320,840	156,478	163,951	7,473 R	...	5	.....	.....	411	.....
Maryland	660,104	384,546	269,534	115,012 D	8	..	4,093	.....	1,274	657
Massachusetts	2,026,993	1,076,522	939,700	136,822 D	17	..	4,091	1,370	3,806	1,504
Michigan	2,085,929	1,032,991	1,039,917	6,926 R	...	19	7,593	1,795	2,834	799
Minnesota	1,251,188	644,196	596,274	47,922 D	11	..	5,454	.....	2,711	2,553
Mississippi	175,824	168,267	2,814	165,453 D	9	..	193	.....	.....	4,550
Missouri	1,833,729	958,476	871,009	87,467 D	15	..	2,226	1,809	.....	209
Montana	247,873	145,698	99,579	46,119 D	4	..	1,443	664	489	.....
Nebraska	615,878	263,677	352,201	88,524 R	...	7	.....	.....	.....	.....
Nevada	53,174	31,945	21,229	10,716 D	3	..	.....	.....	.....	.....
New Hampshire	235,419	125,292	110,127	15,165 D	4	..	.....	.....	.....	.....
New Jersey	1,974,920	1,016,442	945,478	70,964 D	16	..	2,837	872	8,836	455
New Mexico	183,014	103,699	79,315	24,384 D	3	..	.....	.....	.....	.....
New York	6,301,596	3,251,918‡	3,027,478	224,440 D	47	..	18,950	3,250	.....	.....
North Carolina	822,648	609,015	213,633	395,382 D	13	..	.....	.....	.....	.....
North Dakota	280,775	124,036	154,590	30,554 R	...	4	1,279	325	.....	545
Ohio	3,319,912	1,733,139	1,586,773	146,366 D	26	..	.....	.....	.....	.....
Oklahoma	826,212	474,313	348,872	125,441 D	11	..	.....	3,027	.....	.....
Oregon	481,240	258,415	219,555	38,860 D	5	..	398	154	191	2,527
Pennsylvania	4,078,714	2,171,035	1,889,848	281,187 D	36	..	10,967	.....	4,519	2,345
Rhode Island	321,148	182,182	138,653	43,529 D	4	..	.....	74	239	.....
South Carolina	99,830	95,470	1,727	93,743 D	8	..	.....	.....	.....	2,633
South Dakota	308,427	131,362	177,065	45,703 R	...	4	.....	.....	.....	.....
Tennessee	522,823	351,601	169,153	182,448 D	11	..	463	1,606	.....	.....
Texas	1,041,168	840,151	199,152	640,999 D	23	..	723	925	212	.....
Utah	247,819	154,277	93,151	61,126 D	4	..	200	.....	191	.....
Vermont	143,052	64,269	78,371	14,102 R	...	3	.....	.....	411	11
Virginia	346,607	235,961	109,363	126,598 D	11	..	282	882	71	48
Washington	793,833	462,145	322,123	140,022 D	8	..	4,536	1,686	2,626	667
West Virginia	868,076	495,662	372,414	123,248 D	8	..	.....	.....	.....	.....
Wisconsin	1,405,540	704,821	679,206	25,615 D	12	..	15,071	2,148	2,394	1,900
Wyoming	112,240	59,287	52,633	6,654 D	3	..	148	172	.....	.....
Total	49,820,312	27,244,160	22,305,133	4,933,932 D	449	82	100,264	53,604	43,579	63,537

* Breakdown of other votes: Independent Democrat 22,428; Progressive 16,505; Socialist Labor 10,164; Independent Republican 4,550; Industrial 2,553; Jeffersonian Democrat 2,493; Industrial Government 1,518; Labor Party of Maryland 657; Alfred Knutson 545; Republican (Tolbert Faction) 137; scattering 1,953.

† Includes 708 Union votes.

‡ Includes 417,418 American Labor votes.

Presidential Election of 1944

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT:

Democratic—Franklin D. Roosevelt, New York; Harry S. Truman, Missouri.

Republican—Thomas E. Dewey, New York; John W. Bricker, Ohio.

Socialist—Norman Thomas, New York; Darlington Hoopes, Pennsylvania.

Prohibition—Claude A. Watson, California; Andrew Johnson, Kentucky.

Socialist Labor*—Edward A. Teichert, Pennsylvania; Arla A. Albaugh, Ohio.

State	Total	Dem.	Rep.	Plur.		Electoral D	Electoral R	Soc.	Prohib.	Soc. Lab.	Others†
Alabama	244,743	198,918	44,540	154,378	D	11	..	190	1,095	.....	.....
Arizona	137,634	80,926	56,287	24,639	D	4	..	.....	421	.....	.....
Arkansas	212,956	148,965	63,551	85,414	D	9	..	440	.....	.....	.....
California	3,520,875	1,988,564	1,512,965	475,599	D	25	..	3,923	14,770	327	326
Colorado	505,039	234,331	268,731	34,400	R	...	6	1,977	.....	.....	.....
Connecticut	831,990	435,146	390,527	44,619	D	8	..	5,097	.....	1,220	.....
Delaware	125,361	68,166	56,747	11,419	D	3	..	154	294]]	.....	.....
Florida	482,592	339,377	143,215	196,162	D	8	..	.....	.....	.....	.....
Georgia	328,109	268,187	56,507	211,680	D	12	..	6	36	.....	3,373
Idaho	208,321	107,399	100,137	7,262	D	4	..	282	503	.....	.....
Illinois	4,036,061	2,079,479	1,939,314	140,165	D	28	..	180	7,411	9,677	.....
Indiana	1,672,091	781,403	875,891	94,488	R	...	13	2,223	12,574	.....	.....
Iowa	1,052,599	499,876	547,267	47,391	R	...	10	1,511	3,752	193	.....
Kansas	733,776	287,458	442,096	154,638	R	...	8	1,613	2,609	.....	.....
Kentucky	867,921	472,589	392,448	80,141	D	11	..	535	2,023	326	.... ..
Louisiana	349,383	281,564	67,750	213,814	D	10	..	.....	.....	.....	69
Maine	296,400	140,631	155,434	14,803	R	...	5	.....	.....	335	.....
Maryland	608,439	315,490	292,949	22,541	D	8	..	.....	.....	.....	.....
Massachusetts	1,960,665	1,035,296	921,350	113,946	D	16	..	.....	973	2,780	266
Michigan	2,205,223	1,106,899	1,084,423	22,476	D	19	..	4,598	6,503	1,264	1,536
Minnesota	1,125,529	589,864	527,416	62,448	D	11	..	5,073	.....	3,176	.....
Mississippi	180,080	158,515	3,742	154,773	D	9	..	.....	.....	.....	17,823
Missouri	1,571,677	807,356	761,175	46,181	D	15	..	1,751	1,175	220	.....
Montana	207,355	112,556	93,163	19,393	D	4	..	1,296	340	.....	.....
Nebraska	563,126	233,246	329,880	96,634	R	...	6	.....	.....	.....	.....
Nevada	54,234	29,623	24,611	5,012	D	3	..	.....	.....	.....	.....
New Hampshire	229,625	119,663	109,916	9,747	D	4	..	46	.....	.....	.....
New Jersey	1,963,761	987,874	961,335	26,539	D	16	..	3,358	4,255	6,939	.....
New Mexico	152,225	81,389	70,683	10,701	D	4	..	.....	148	.....	.....
New York	6,316,790	3,304,238‡	2,987,647	316,591	D	47	..	10,553	.....	14,352	.....
North Carolina	790,554	527,399	263,155	264,244	D	14	..	.....	.....	.....	.....
North Dakota	220,171	100,144	118,535	18,391	R	...	4	943	549	.....	.....
Ohio	3,153,056	1,570,763	1,582,293	11,530	R	...	25	.....	.....	.....	.....
Oklahoma	722,636	401,549	319,424	82,125	D	10	..	.....	1,663	.....	.....
Oregon	480,147	248,635	225,365	23,270	D	6	..	3,785	2,332	.....	.....
Pennsylvania	3,794,793	1,940,479	1,835,054	105,425	D	35	..	11,721	5,750	1,789	.....
Rhode Island	299,276	175,356	123,487	51,869	D	4	..	.....	433	.....	.....
South Carolina	103,375	90,601	4,547	86,054	D	8	..	.....	365	.....	7,862
South Dakota	232,076	96,711	135,365	38,654	R	...	4	.....	.....	.....	.....
Tennessee	510,692	308,707	200,311	108,396	D	12	..	792	882	....	.....
Texas	1,150,326	821,605	191,425	630,180	D	23	..	593	1,013	.....	135,690
Utah	248,319	150,088	97,891	52,197	D	4	..	340	.....	.....	.....
Vermont	125,361	53,820	71,527	17,707	R	...	3	.....	.....	.....	14
Virginia	388,485	242,276	145,243	97,033	D	11	..	417	459	90	.....
Washington	856,328	486,774	361,689	125,035	D	8	..	3,824	2,396	1,645	.....
West Virginia	715,596	392,777	322,819	69,953	D	8	..	.....	.....	.....	.....
Wisconsin	1,339,152	650,413	674,532	24,119	R	...	12	13,205	.....	1,002	.....
Wyoming	101,340	49,419	51,921	2,502	R	...	3	.....	.....	.....	.....
Total	47,976,263	25,602,504	22,006,285	3,596,219	D	432	99	80,426	74,754	45,335	166,959

* Industrial Government candidates in Minnesota, New York and Pennsylvania.

† Breakdown of other votes: Texas Regulars 135,439; Regular Democrat 9,954; Independent Republican 7,859; Southern Democrat 7,799; Independent Democrat 3,373; America First 1,781; Republican (Tolbert Faction) 63; scattering 681.

‡ Includes 496,405 American Labor and 329,235 Liberal votes.

Presidential Election of 1948

CANDIDATES FOR PRESIDENT AND VICE PRESIDENT

Democratic—Harry S. Truman, Missouri; Alben Barkley, Kentucky.
Republican—Thomas E. Dewey, New York; Earl Warren, California.
States' Rights Democratic—J. Strom Thurmond, South Carolina; Fielding L. Wright, Mississippi.
Progressive[1]—Henry A. Wallace, Iowa; Glen H. Taylor, Idaho.
Socialist—Norman Thomas, New York; Tucker P. Smith, Michigan.
Prohibition—Claude A. Watson, California; Dale Learn, Pennsylvania.
Socialist Labor[2]—Edward A. Teichert, Pennsylvania; Stephen Emery, New York.

State	Total	Dem.	Rep.	SR Dem.	Plur.		Electoral D	Electoral R	Electoral S	Prog.[1]	Others[3]
Alabama	214,980	(4)	40,930	171,443	130,513	S	..	..	11	1,522	1,085
Arizona	177,065	95,251	77,597	.....	17,654	D	4	..	..	3,310	907
Arkansas	242,475	149,659	50,959	40,068	98,700	D	9	..	..	751	1,038
California	4,021,538	1,913,134	1,895,269	1,228[5]	17,865	D	25	..	..	190,381	21,526
Colorado	515,237	267,288	239,714	.....	27,574	D	6	..	..	6,115	2,120
Connecticut	883,518	423,297	437,754	.....	14,457	R	..	8	..	13,713	8,754
Delaware	139,073	67,813	69,588	.....	1,775	R	..	3	..	1,050	622
Florida	577,643	281,988	194,280	89,755	87,708	D	8	..	..	11,620	.....
Georgia	418,760	254,646	76,691	85,055	169,591	D	12	..	..	1,636	732
Idaho	214,816	107,370	101,514	.....	5,856	D	4	..	..	4,972	960
Illinois	3,984,046	1,994,715	1,961,103	.....	33,612	D	28	..	..	.....	28,228
Indiana	1,656,214	807,833	821,079	.....	13,246	R	..	13	..	9,649	17,653
Iowa	1,038,264	522,380	494,018	.....	28,362	D	10	..	..	12,125	9,741
Kansas	788,819	351,902	423,039	.....	71,137	R	..	8	..	4,603	9,275
Kentucky	822,658	466,756	341,210	10,411	125,546	D	11	..	..	1,567	2,714
Louisiana	416,326	136,344	72,657	204,290	67,946	S	..	..	10	3,035	.....
Maine	264,787	111,916	150,234	.....	38,318	R	..	5	..	1,884	753
Maryland	596,735	286,521	294,814	2,476[5]	8,293	R	..	8	..	9,983	2,941
Massachusetts	2,155,347	1,151,788	909,370	.....	242,418	D	16	..	..	38,157	56,032
Michigan	2,109,609	1,003,448	1,038,595	.....	35,147	R	..	19	..	46,515	21,051
Minnesota	1,212,226	692,966[6]	483,617	.....	209,349	D	11	..	..	27,866	7,777
Mississippi	192,190	19,384[7]	5,043[8]	167,538[9]	148,154	S	..	..	9	225	.....
Missouri	1,578,628	917,315	655,039	.....	262,276	D	15	..	..	3,998	2,276
Montana	224,278	119,071	96,770	.....	22,301	D	4	..	..	7,313	1,124
Nebraska	488,939	224,165	264,774	.....	40,609	R	..	6	..	.....	.....
Nevada	62,117	31,291	29,357	.....	1,934	D	3	..	..	1,469	.....
New Hampshire	231,440	107,995	121,299	7	13,304	R	..	4	..	1,970	169
New Jersey	1,949,555	895,455	981,124	.....	85,669	R	..	16	..	42,683	30,293
New Mexico	185,767	105,464	80,303	.....	25,161	D	4	..	..	.....	.....
New York	6,274,527	2,780,204[10]	2,841,163	.....	60,959	R	..	47	..	509,559	143,601
North Carolina	791,209	459,070	258,572	69,652	200,498	D	14	..	..	3,915	.....
North Dakota	220,716	95,812	115,139	374	19,327	R	..	4	..	8,391	1,000
Ohio	2,936,071	1,452,791	1,445,684	.....	7,107	D	25	..	..	37,596	.....
Oklahoma	721,599	452,782	268,817	.....	183,965	D	10	..	..	.....	.....
Oregon	524,080	243,147	260,904	.....	17,757	R	..	6	..	14,978	5,051
Pennsylvania	3,735,149	1,752,426	1,902,197	.....	149,771	R	..	35	..	55,161	25,365
Rhode Island	326,038	188,619	134,892	.....	53,727	D	4	..	..	2,587	.....
South Carolina	142,571	34,423	5,386	102,607	68,184	S	..	..	8	154	1
South Dakota	250,105	117,653	129,651	.....	11,998	R	..	4	..	2,801	.....
Tennessee	550,233	270,402	202,914	73,815	67,488	D	11	..	1	1,864	1,288
Texas	1,147,245	750,700	282,240	106,909	468,460	D	23	..	..	3,764	3,632
Utah	276,305	149,151	124,402	.....	24,749	D	4	..	..	2,679	73
Vermont	123,382	45,557	75,926	.....	30,369	R	..	3	..	1,279	620
Virginia	419,256	200,786	172,070	43,393	28,716	D	11	..	..	2,047	960
Washington	905,059	476,165	386,315	.....	89,850	D	8	..	..	31,632	10,887
West Virginia	748,750	429,188	316,251	.....	112,937	D	8	..	..	3,311	.....
Wisconsin	1,276,800	647,310	590,959	.....	56,351	D	12	..	..	25,282	13,249
Wyoming	101,425	52,354	47,947	.....	4,407	D	3	..	..	931	193
Total	48,833,680	24,105,695	21,969,170	1,169,021	2,136,525	D	303	189	39	1,156,103	433,691

[1] Independent Progressive in California; Peoples in Connecticut; Independent in Kansas, Mississippi, Ohio, South Dakota; American Labor in New York; People's Progressive in Wisconsin. [2] Industrial Government in Minnesota, New York, Pennsylvania; Independent Socialist Labor in Wisconsin. [3] Breakdown of other votes: Socialist 139,009; Prohibition 103,216; Socialist Labor 29,061; Socialist Workers 13,613; Christian Nationalist 42; Greenback 6; Vegetarian 4; blank 145,320; write-in 1,683; scattering 1,666; void 71. [4] Not on ballot. [5] Write-in votes. [6] Including Farmer-Labor votes. [7] National Democratic. [8] Contains 2,595 Republican and 2,448 Independent Republican votes. [9] Mississippi Democratic. [10] Includes 222,562 Liberal votes.

Electoral Vote
for President, 1888-1924

States	1888		1892			1896		1900		1904		1908		1912			1916		1920		1924		
	Harrison, Rep.	Cleveland, Dem.	Cleveland, Dem.	Harrison, Rep.	Weaver, Peo.	McKinley, Rep.	Bryan, Dem.	McKinley, Rep.	Bryan, Dem.	Roosevelt, Rep.	Parker, Dem.	Taft, Rep.	Bryan, Dem.	Wilson, Dem.	Taft, Rep.	Roosevelt, Prog.	Wilson, Dem.	Hughes, Rep.	Harding, Rep.	Cox, Dem.	Coolidge, Rep.	Davis, Dem.	LaFollette, Prog.
Alabama		10	11				11		11		11		11	12			12			12		12	
Arizona														3			3		3		3		
Arkansas		7	8				8		8		9		9	9			9			9		9	
California	8		8	1		8	1	9		10		10		2		11	13		13		13		
Colorado	3				4		4		4	5			5	6			6		6		6		
Connecticut		6	6			6		6		7		7		7				7	7		7		
Delaware		3	3			3		3		3		3		3				3	3		3		
Florida		4	4				4		4		5		5	6			6			6		6	
Georgia		12	13				13		13		13		13	14			14			14		14	
Idaho					3		3		3	3		3		4			4		4		4		
Illinois	22		24			24		24		27		27		29				29	29		29		
Indiana	15		15			15		15		15		15		15				15	15		15		
Iowa	13			13		13		13		13		13		13				13	13		13		
Kansas	9			10		10		10		10		10		10			10		10		10		
Kentucky		13	13			12	1		13		13		13	13			13			13	13		
Louisiana		8	8				8		8		9		9	10			10			10		10	
Maine	6			6		6		6		6		6		6				6	6		6		
Maryland		8	8			8		8		1	7	2	6	8			8		8		8		
Massachusetts	14			15		15		15		16		16		18				18	18		18		
Michigan	13		5	9		14		14		14		14			15		15		15		15		
Minnesota	7			9		9		9		11		11			12			12	12		12		
Mississippi		9	9				9		9		10		10	10			10			10		10	
Missouri		16	17				17		17	18		18		18			18		18		18		
Montana				3			3		3	3		3		4			4		4		4		
Nebraska	5			8			8	8		8			8	8			8		8		8		
Nevada	3				3		3		3	3			3	3			3		3		3		
New Hampshire	4			4		4		4		4		4		4			4		4		4		
New Jersey		9	10			10		10		12		12		14				14		14	14		
New Mexico														3			3		3		3		
New York	36		36			36		36		39		39		45				45	45		45		
North Carolina		11	11				11		11		12		12	12			12			12		12	
North Dakota			1	1	1	3		3		4		4		5			5		5		5		
Ohio	23		1	22		23		23		23		23		24			24		24		24		
Oklahoma													7	10			10		10		10		
Oregon	3			3	1	4		4		4		4		5				5	5		5		
Pennsylvania	30			32		32		32		34		34			38		38		38		33		
Rhode Island	4			4		4		4		4		4		5				5	5		5		
South Carolina		9	9				9		9		9		9	9			9			9		9	
South Dakota				4		4		4		4		4			5		5		5		5		
Tennessee		12	12				12		12		12		12	12			12		12		12		
Texas		13	15				15		15		18		18	20			20			20		20	
Utah							3		3		3		3		4		4		4		4		
Vermont	4			4		4		4		4		4			4			4	4		4		
Virginia		12	12				12		12		12		12	12			12			12		12	
Washington				4		4		4		5		5			7		7		7		7		
West Virginia		6	6			6		6		7		7		8			1	7	8		8		
Wisconsin	11		12			12		12		12		13		13				13	13				13
Wyoming				3			3	3		3		3		3			3		3		3		
Total	233	168	277	145	22	271	176	292	155	336	140	321	162	435	8	88	277	254	404	127	382	136	13

NOTE: For electoral votes by state in elections later than 1924, see preceding pages.

CONGRESS

Representatives Under Each Apportionment

Source: The Congressional Directory.

The apportionment based on the Seventeenth Census (1950) distributes the 435 seats in the House among the States according to the method of equal proportions. By this method the per cent difference between the average number of Representatives per million people in any 2 States is made as small as possible. Also, the per cent difference between the average districts, i.e., the average number of persons per Representative, in any 2 States is made as small as possible. By equalizing the representation of all pairs of States, the method gives as nearly equal representation as possible to all States in proportion to their population.

State	Constitutional apportionment	First Census, 1790	Second Census, 1800	Third Census, 1810	Fourth Census, 1820	Fifth Census, 1830	Sixth Census, 1840	Seventh Census, 1850	Eighth Census, 1860	Ninth Census, 1870	Tenth Census, 1880	Eleventh Census, 1890	Twelfth Census, 1900	Thirteenth Census, 1910*	Fifteenth Census, 1930	Sixteenth Census, 1940	Seventeenth Census, 1950
Alabama	.....	.....	.....	1	3	5	7	7	6	8	8	9	9	10	9	9	9
Arizona	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	2
Arkansas	.....	.....	.....	.....	.....	1	1	2	3	4	5	6	7	7	7	7	6
California	.....	.....	.....	.....	.....	.....	2	2	3	4	6	7	8	11	20	23	30
Colorado	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	3	4	4	4	4
Connecticut	5	7	7	7	6	6	4	4	4	4	4	4	5	5	6	6	6
Delaware	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Florida	.....	.....	.....	.....	.....	.....	1	1	1	2	2	2	3	4	5	6	8
Georgia	3	2	4	6	7	9	8	8	7	9	10	11	11	12	10	10	10
Idaho	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	2	2	2	2
Illinois	.....	.....	.....	1	1	3	7	9	14	19	20	22	25	27	27	26	25
Indiana	.....	.....	.....	1	3	7	10	11	11	13	13	13	13	13	12	11	11
Iowa	.....	.....	.....	.....	.....	.....	2	2	6	9	11	11	11	11	9	8	8
Kansas	.....	.....	.....	.....	.....	.....	.....	.....	1	3	7	8	8	8	7	6	6
Kentucky	.....	2	6	10	12	13	10	10	9	10	11	11	11	11	9	9	8
Louisiana	.....	.....	.....	1	3	3	4	4	5	6	6	6	7	8	8	8	8
Maine	.....	.....	.....	7	7	8	7	6	5	5	4	4	4	4	3	3	3
Maryland	6	8	9	9	9	8	6	6	5	6	6	6	6	6	6	6	7
Massachusetts	8	14	17	13	13	12	10	11	10	11	12	13	14	16	15	14	14
Michigan	.....	.....	.....	.....	.....	1	3	4	6	9	11	12	12	13	17	17	18
Minnesota	.....	.....	.....	.....	.....	.....	.....	2	2	3	5	7	9	10	9	9	9
Mississippi	.....	.....	.....	1	1	2	4	5	5	6	7	7	8	8	7	7	6
Missouri	.....	.....	.....	.....	1	2	5	7	9	13	14	15	16	16	13	13	11
Montana	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	2	2	2	2
Nebraska	.....	.....	.....	.....	.....	.....	.....	.....	1	1	3	6	6	6	5	4	4
Nevada	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1	1	1
New Hampshire	3	4	5	6	6	5	4	3	3	3	2	2	2	2	2	2	2
New Jersey	4	5	6	6	6	6	5	5	5	7	7	8	10	12	14	14	14
New Mexico	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	2
New York	6	10	17	27	34	40	34	33	31	33	34	34	37	43	45	45	43
North Carolina	5	10	12	13	13	13	9	8	7	8	9	9	10	10	11	12	12
North Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	3	2	2	2
Ohio	.....	.....	1	6	14	19	21	21	19	20	21	21	21	22	24	23	23
Oklahoma	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	8	9	8	6
Oregon	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	2	2	3	3	4	4
Pennsylvania	8	13	18	23	26	28	24	25	24	27	28	30	32	36	34	33	30
Rhode Island	1	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2
South Carolina	5	6	8	9	9	9	7	6	4	5	7	7	7	7	6	6	6
South Dakota	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	2	3	2	2	2
Tennessee	.....	1	3	6	9	13	11	10	8	10	10	10	10	10	9	10	9
Texas	.....	.....	.....	.....	.....	.....	2	2	4	6	11	13	16	18	21	21	22
Utah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2	2	2	2
Vermont	.....	2	4	6	5	5	4	3	3	3	2	2	2	2	1	1	1
Virginia	10	19	22	23	22	21	15	13	11	9	10	10	10	10	9	9	10
Washington	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	3	5	6	6	7
West Virginia	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	4	4	5	6	6	6	6
Wisconsin	.....	.....	.....	.....	.....	.....	2	3	6	8	9	10	11	11	10	10	10
Wyoming	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	1	1	1	1
Total	65	106	142	186	213	242	232	237	243	293	332	357	391	435	435	435	435

* No apportionment was made in 1920.

Qualifications for Voting in the 48 States

Source: Questionnaires to the states.

State	Minimum length of U. S. citizenship	Residence[1]			Literacy test	Poll tax[2]
		State	County	District		
Alabama	.....	2 yr.	1 yr.	3 mo.[3]	Yes	$1.50
Arizona	1 yr.	1 yr.	3 mo.	30 da.	....	....
Arkansas	.....	1 yr.	6 mo.	30 da.[4]	....	1.00
California	3 mo.	1 yr.	3 mo.	54 da.[4]	Yes	....
Colorado	.....	1 yr.	3 mo.	30 da.[5]	....	....
Connecticut	.....	1 yr.	....	6 mo.[6]	Yes	....
Delaware	.....	1 yr.	3 mo.	30 da.	Yes	....
Florida	.....	1 yr.	6 mo.	.....	....	....
Georgia[7]	.....	1 yr.	6 mo.	6 mo.	Yes	....
Idaho	(8)	6 mo.	30 da.	.....	....	....
Illinois	.....	1 yr.	3 mo.	30 da.	....	....
Indiana	.....	6 mo.	2 mo.[9]	30 da.[4]	....	....
Iowa	.....	6 mo.	2 mo.	10 da.	....	....
Kansas	.....	6 mo.	.....	30 da.[10]	....	....
Kentucky	.....	1 yr.	6 mo.	2 mo.	....	....
Louisiana	.....	2 yr.	1 yr.[11]	3 mo.[19]	Yes	....
Maine	.....	6 mo.	.....	3 mo.[6]	Yes	....
Maryland	.....	1 yr.	6 mo.	6 mo.	....	....
Massachusetts	.....	1 yr.	.....	6 mo.[6]	Yes	....
Michigan	.....	6 mo.	.....	30 da.[6]	....	....
Minnesota	3 mo.	6 mo.	.....	30 da.	....	....
Mississippi	.....	2 yr.	.....	1 yr.	(12)	2.00
Missouri	.....	1 yr.	.....	2 mo.[6]	....	....
Montana	.....	1 yr.	30 da.	30 da.[4]	....	....
Nebraska	.....	6 mo.	40 da.	10 da.	....	....
Nevada	.....	6 mo.	30 da.	10 da.[4]	....	....
New Hampshire	.....	6 mo.	.....	6 mo.[6]	Yes	....
New Jersey	.....	1 yr.	5 mo.	.....	....	....
New Mexico	.....	1 yr.	3 mo.	30 da.[4]	....	....
New York	90 da.	1 yr.	4 mo.	30 da.	Yes	....
North Carolina	.....	1 yr.	4 mo.	4 mo.	Yes	....
North Dakota	.....	1 yr.	3 mo.	30 da.[4]	....	....
Ohio	.....	1 yr.	40 da.	40 da.[4]	....	....
Oklahoma	.....	1 yr.	6 mo.	30 da.[4]	....	....
Oregon	.....	6 mo.	.....	30 da.	Yes	....
Pennsylvania	1 mo.	1 yr.[13]	.....	2 mo.	....	....
Rhode Island	.....	2 yr.	.....	6 mo.[6]	....	....
South Carolina	2 yr.	2 yr.	1 yr.	4 mo.	....	(18)
South Dakota	5 yr.	1 yr.	3 mo.	30 da.[4]	....	....
Tennessee	.....	1 yr.	6 mo.	.....	....	1.00[14]
Texas	.....	1 yr.	6 mo.	.....	....	1.75
Utah	3 mo.	1 yr.	4 mo.	2 mo.[4]	....	....
Vermont	.....	1 yr.	.....	3 mo.[6,15]	....	....
Virginia	.....	1 yr.	6 mo.[16]	30 da.[4]	Yes	1.50
Washington	.....	1 yr.	3 mo.	30 da.[17]	Yes	....
West Virginia	.....	1 yr.	2 mo.	.....	....	....
Wisconsin	.....	1 yr.	.....	10 da.	....	....
Wyoming	.....	1 yr.	2 mo.	10 da.	....	....

[1] Registration of all or part of the voters is required in most states. [2] Annual levy. Although poll (or head) taxes are levied in several other states, those listed make payment of the tax a condition for voting. [3] Precinct or ward. [4] Precinct. [5] City or town, and 15 days in precinct. [6] City or town. [7] Minimum voting age is 18; in all other states it is 21. [8] First paper must have been taken out. [9] Township. [10] Township or ward. [11] Parish. [12] Must be able to read or understand when read to him any section of Mississippi constitution. [13] 6 months if previously qualified elector or natural-born citizen of state. [14] Not now operative. 1951 statute requires only that voter liable in 1870 should have paid. Thus, by statute, the state constitutional requirement is circumvented. [15] To qualify to vote for representatives to general assembly or justices. [16] County, city, or town. [17] City town, ward, or precinct. [18] Repealed in 1945. [19] Municipality 4 mo.

Plurality and Majority

In order to win a plurality, a candidate must receive a greater number of votes than anyone running against him. If he receives 50 votes, for example, and two other candidates receive 49 and 2, he will have a plurality of one vote over his closest opponent.

However, a candidate does not have a majority unless he receives more than 50 per cent of the total votes cast. In the example above, the candidate does not have a majority, because his 50 votes are less than 50 per cent of the 101 votes cast.

If only two candidates receive votes, a plurality is necessarily a majority, but if more than two candidates receive votes, it is possible for one to have a substantial plurality without a majority.

BIOGRAPHIES OF THE PRESIDENTS

by PROFESSOR ARTHUR M. SCHLESINGER, JR.

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Author of the Pulitzer Prize-winning Age of Jackson

GEORGE WASHINGTON

was born February 22, 1732 (February 11, 1731/2, old style) in Westmoreland County, Virginia. He early trained as a surveyor; but in 1752 he was appointed adjutant in the Virginia militia, and for the next three years he took an active part in the wars against the French and Indians, serving as General Braddock's aide in the disastrous campaign against Fort Duquesne. In 1759 he resigned from the militia, married Martha Dandridge Custis, a widow, and settled down as a gentleman farmer at Mount Vernon.

As a militiaman, he had been exposed to the arrogance of the British officers, and his experience as a planter with British commercial restrictions increased his anti-British sentiment. He opposed the Stamp Act of 1765 and after 1770 became increasingly prominent in organizing resistance. A delegate to the Continental Congress, Washington was selected as commander in chief of the Continental Army and took command at Cambridge, Massachusetts, on July 3, 1775.

Inadequately supported and sometimes covertly sabotaged by the Congress, in charge of troops who were inexperienced, badly equipped and impatient of discipline, Washington conducted the war on the policy of avoiding major engagements with the British and wearing them down by harassing tactics. His able generalship, along with the French alliance and the growing weariness within Britain, brought the war to a conclusion with the surrender of Cornwallis at Yorktown on October 19, 1781.

The chaotic years under the Articles of Confederation led Washington to return to public life in the hope of promoting the formation of a strong central government. He presided over the Constitutional Convention and yielded to the universal demand that he serve as first President. In office, he sought to unite the nation in the service of establishing the authority of new government at home and abroad. Greatly distressed by the emergence of the Hamilton-Jefferson rivalry, he worked to maintain neutrality but actually sympathized more with Hamilton. Following his unanimous re-election in 1792, his second term was dominated by the Federalists. His Farewell Address rebuked party spirit and warned against foreign entanglements.

He died at Mt. Vernon on December 14, 1799. Tall, dignified and impressive, Washington gave a public impression of austerity, though he was capable of gaiety in private. His life was characterized by a strict sense of duty to his people. The standard biographies are by Fitzpatrick, Ford, Hughes and Stephenson.

JOHN ADAMS

was born on October 30 (October 19, old style), 1735, at Braintree (now Quincy), Massachusetts. A Harvard graduate, he considered teaching and the ministry but finally turned to law and was admitted to the bar in 1758. He opposed the Stamp Act, served as lawyer for patriots indicted by the British and, by the time of the Continental Congresses, was in the vanguard of the movement for independence. In 1778 he went to France as commissioner. Subsequently he helped negotiate the peace treaty with Britain, and in 1785 became the U. S. envoy to London. Resigning in 1788, he was elected Vice President under Washington, and was re-elected in 1792.

Though a Federalist, Adams did not get along with Hamilton who sought to prevent his election to the presidency in 1796, and thereafter intrigued against his administration. Adams was chosen with 71 electoral votes to 68 for his closest competitor, Thomas Jefferson, who became Vice President. In 1798 Adams' independent policy averted a war with France but completed the break with Hamilton and the right-wing Federalists while, at the same time, the enactment of the Alien and Sedition Acts, directed against foreigners and against critics of the government, exasperated the Jeffersonian opposition. The split between Adams and Hamilton elected Jefferson in 1800. Adams retired to his home in Quincy, Massachusetts. He later corresponded with Jefferson and they died on the same day, July 4, 1826.

Stout, somewhat vain and irascible, Adams was honest, fearless and essentially fair-minded. His *Defence of the Constitutions of Government of the United States* (1787) contains original and striking if conservative political ideas. He married Abigail Smith in 1764, and their life together was long and happy. The standard biographies are by Morse and Chinard.

THOMAS JEFFERSON

was born on April 13 (April 2, old style), 1743, at Shadwell in Goochland (now Albemarle) County, Virginia. A William and Mary graduate, he studied law but from the start showed an interest in science and philosophy. His literary skill and political clarity brought him to the forefront

of the revolutionary movement in Virginia. As delegate to the Continental Congress, he drafted the Declaration of Independence. In 1776 he entered the Virginia House of Delegates and initiated a comprehensive reform program for the abolition of feudal survivals in land tenure and the separation of church and state.

In 1779 he became governor, but constitutional limitations on his power combined with his own lack of executive energy caused an unsatisfactory administration, culminating in Jefferson's virtual abdication when the British invaded Virginia in 1781. He now retired to his beautiful home at Monticello, to his wife, Martha Wayles Skelton, whom he had married in 1772 and who died in 1782, and to his children.

Jefferson's *Notes on Virginia* (1784–85) illustrate his many-faceted interests, his limitless intellectual curiosity, his deep faith in agrarian democracy. Sent to Congress in 1783, he helped lay down the decimal system and drafted basic reports on the organization of the western lands. In 1785 he was appointed minister to France, where the Anglo-Saxon liberalism he had drawn from Locke was stimulated by contact with the thought which would soon ferment in the French Revolution. In 1789 Washington appointed him Secretary of State. While favoring the Constitution and a strengthened central government, Jefferson came to believe that Hamilton contemplated the establishment of a monarchy. Growing differences resulted in Jefferson's resignation on Dec. 31, 1793.

Elected Vice President in 1796, Jefferson continued to serve as spiritual leader of the opposition to Federalism, particularly to the repressive Alien and Sedition Acts. He was elected President in 1801 by the House of Representatives as a result of Hamilton's decision to throw the Federalist votes to him rather than to Aaron Burr, who had tied him in electoral votes. The purchase of Louisiana from France in 1803, though in violation of his earlier constitutional scruples, was the most notable act of his administration. Re-elected in 1804 with 162 electoral votes to 14 for the Federalist Charles C. Pinckney, Jefferson tried desperately during his second term to keep the United States out of the Napoleonic Wars in Europe, employing to this end the unpopular embargo policy.

After his retirement to Monticello in 1809, he developed his interest in education, founding the University of Virginia and watching its development with never-flagging interest. He died at Monticello on July 4, 1826. Tall, loose-jointed, a poor speaker, Jefferson had an enormous variety of interests and skills, ranging from education and science to architecture and music. Economically his conception of democracy persupposed an essentially rural community of small freeholds; but his deep and abiding faith in the common man provides inspiration for future generations. The standard biographies are by Chinard, Bowers, Kimball, Randall and Malone.

JAMES MADISON

was born in Port Conway, Virginia, on March 16, 1751 (March 5, 1750/1, old style). A Princeton graduate, he joined the struggle for independence on his return to Virginia in 1771. In the seventies and eighties he was active both in state politics, where he championed the Jefferson reform program, and in the Continental Congress. He was influential in the Constitutional Convention as leader of the group favoring a strong central government and as recorder of the debates; and he subsequently wrote, in collaboration with Alexander Hamilton and John Jay, the *Federalist* papers to aid the campaign for the adoption of the Constitution.

In the new Congress, Madison soon emerged as the leader in the House of the men who opposed Hamilton's financial program and his pro-British leanings in foreign policy. Retiring from Congress in 1797, he continued active in Virginia and drafted the Virginia Resolution protesting the Alien and Sedition Acts. His intimacy with Jefferson made him natural choice for Secretary of State in 1801.

In 1809 Madison succeeded Jefferson as President, with 122 electoral votes to 47 for the Federalist, C. C. Pinckney, and 6 scattering. His attractive wife, Dolly Payne Todd, whom he married in 1794, brought a new social sparkle to the executive mansion. In the meantime, increasing tension with Britain culminated in the War of 1812—a war for which the United States was unprepared, and for which Madison lacked the executive talent to clear out incompetence and mobilize the nation's energies. Madison was re-elected in 1812, with 128 electoral votes to 89 for the Federalist, De Witt Clinton. In 1814 the British actually captured Washington and forced Madison to flee to Virginia.

In his domestic program, Madison capitulated to the Hamiltonian policies that he had resisted twenty years before, signing bills to establish a United States Bank and a higher tariff. Following his presidency, he remained in retirement in Virginia until his death on June 28, 1836. Small, wrinkled, unimpressive, Madison had an acute political intelligence but lacked executive force. The standard lives are by Hunt, Brant and Rives.

JAMES MONROE

was born on April 28, 1758, in Westmoreland County, Virginia. A William and Mary graduate, he served in the army during

the first years of the Revolution and was wounded at Trenton. He then entered Virginia politics and later national politics under the sponsorship of Jefferson. In 1786 he married Eliza Kortright.

Fearing centralization, Monroe opposed the adoption of the Constitution and, as senator from Virginia, was highly critical of the Hamiltonian program. In 1794 he was appointed minister to France where his ardent sympathies with the Revolution exceeded the wishes of the State Department. A troubled diplomatic career ended with his recall in 1796. From 1799 to 1802 he was governor of Virginia. In 1803 Jefferson sent him to France to help negotiate the Louisiana Purchase and for the next few years he was active in various continental negotiations.

In 1808 Monroe flirted with the radical wing of the Republican party, which opposed Madison's candidacy; but the presidential boom came to naught and, after a brief term as governor of Virginia in 1811, Monroe accepted Madison's offer of the State Department. During the war he vainly sought a field command and served as Secretary of War from Sept., 1814, to Mar., 1815.

Elected President in 1816 with 183 electoral votes to 34 for the Federalist Rufus King, and re-elected without opposition in 1820, Monroe, the last of the Virginia dynasty, pursued the course of systematic tranquilization which won for his terms the name "the era of good feeling." He continued Madison's surrender to the Hamiltonian domestic program, signed the Missouri Compromise, acquired Florida and, with the able assistance of his Secretary of State, John Quincy Adams, promulgated the Monroe Doctrine in 1823, declaring against foreign colonization or intervention in the Americas. He died in New York City on July 4, 1831.

A sound man of medium abilities, Monroe possessed qualities of judgment rather than of leadership. The standard biographies are by Morgan, Gilman and Styron.

JOHN QUINCY ADAMS

was born on July 11, 1767, at Braintree (now Quincy), Massachusetts, the son of John Adams. He spent his early years in Europe with his father, graduated from Harvard and entered law practice. His anti-Jeffersonian newspaper articles won him political attention. In 1794 he became minister to the Netherlands, the first of several diplomatic posts which occupied him until his return to Boston in 1801. In 1797 he married Louisa Catherine Johnson.

In 1803 he was elected to the Senate, nominally as a Federalist, but his repeated displays of independence on such issues as the Louisiana Purchase and the embargo caused his party to compel his resignation and ostracize him socially. In 1809 Madison rewarded him for his support of Jefferson by appointing him minister to St. Petersburg. He helped negotiate the Treaty of Ghent in 1814 and in 1815 became minister to London. In 1817 Monroe appointed him Secretary of State where he served with great distinction, gaining Florida from Spain without hostilities and playing an equal part with Monroe in formulating the Monroe Doctrine.

When no presidential candidate received a majority of electoral votes in 1824, Adams, with the support of Henry Clay, was elected by the House in 1825 over Andrew Jackson who had the original plurality. Adams had ambitious plans of government activity to foster internal improvements and promote the arts and sciences; but congressional obstructionism combined with his own unwillingness or inability to play the role of a politician meant that little was accomplished. Retiring to Quincy after his defeat in 1828, he was elected to the House of Representatives in 1831 where, though nominally a Whig, he pursued as ever an independent course. He led the fight to force Congress to receive anti-slavery petitions and fathered the Smithsonian Institution.

Stricken on the floor of the House, he died on February 23, 1848. Tactless, brusque, conscientious, a rough and savage debater, Adams spared neither himself nor his enemies. His long and detailed *Diary* gives a unique picture of the personalities and politics of the times. The standard biographies are by Morse and Clark.

ANDREW JACKSON

was born on March 15, 1767, in what is now generally agreed to be Waxhaw, South Carolina. After a turbulent boyhood as an orphan and a British prisoner, he moved west to Tennessee where he soon qualified for law practice but found time for such frontier pleasures as horse racing, cockfighting and dueling. His marriage to Rachel Donelson Robards in 1791 was complicated by subsequent legal uncertainties about the status of her divorce. During the seventeen-nineties Jackson served in the Tennessee constitutional convention, the federal House of Representatives, the federal Senate and the Tennessee supreme court.

After some years as a country gentleman, living at the Hermitage near Nashville, Jackson in 1812 was given command of Tennessee troops sent against the Creeks. He defeated the Indians at Horseshoe Bend in 1814; subsequently he became a major general and won the Battle of New Orleans over veteran British troops though after the treaty of peace had been signed at Ghent. In 1818 General Jackson invaded Florida, captured Pensacola and hanged two Englishmen named Arbuthnot and

Ambrister, creating an international incident. A presidential boom began for him in 1821 and in its service he returned to the Senate (1823–25). Though he won a plurality of electoral votes in 1824, he lost in the House when Clay threw his strength to Adams; he won easily in 1828 by an electoral vote of 178 to 83.

As President, Jackson greatly expanded the power and prestige of the presidential office and carried through an unexampled program of domestic reform, vetoing the bill to extend the United States Bank, moving toward a hard-money currency policy and checking the program of federal internal improvements. He also vindicated federal authority against South Carolina with its doctrine of nullification and against France on the question of debts. The support given his policies by the workingmen of the East as well as by the farmers of the East, West and South resulted in his triumphant re-election in 1832 over Clay by an electoral vote of 219 to 49, with 18 scattering and 2 not cast.

After watching the inauguration of his hand-picked successor, Martin Van Buren, Jackson retired to the Hermitage where he maintained a lively interest in national affairs until his death on June 8, 1845. A tall, dignified man with a drawn and wrinkled face, Jackson has been endowed by partisan historians with a violence and irascibility he appears not to have possessed. His great contribution was to adjust the presidential office and the democratic doctrines of Jefferson to the new situation created by the Industrial Revolution. The standard biographies are by James, Bassett and Parton.

MARTIN VAN BUREN

was born on December 5, 1782, at Kinderhook, New York. After graduating from the village school, he became a law clerk, entered practice in 1803 and soon became active in state politics as state senator and attorney general. In 1821 he was elected to the United States Senate. He threw the support of his efficient political organization, known as the Albany Regency, to William H. Crawford in 1824 and to Jackson in 1828. After leading the opposition to Adams' administration in the Senate, he served briefly as governor of New York and resigned to become Jackson's Secretary of State. He soon became on close personal terms with Jackson and played an important part in turning the Jacksonian program from the lines intended by his original Western backers.

In 1832 Van Buren became Vice President; in 1836, President, with an electoral vote of 170 against 124 scattered among four opponents. The Panic of 1837 overshadowed his term. He attributed it to the overexpansion of the credit and favored the establishment of an independent treasury as repository for the federal funds. In 1840 he established a ten-hour day on public works. Defeated by Harrison in 1840, he was the leading contender for the Democratic nomination in 1844 until he publicly opposed immediate annexation of Texas and was subsequently beaten by the Southern delegations at the Baltimore convention. This incident increased his growing misgivings about the slave power.

After working behind the scenes among the antislavery Democrats, Van Buren joined in the movement which led to the Free-Soil party and became its candidate for President in 1848. He subsequently returned to the Democratic party while continuing to object to its pro-Southern policy. He died in Kinderhook on July 24, 1862. His *Autobiography* throws valuable sidelights on the political history of the times.

Small, erect, dapper, Van Buren had a reputation for slick politicking which won him such sobriquets as the Little Magician and the Red Fox of Kinderhook; but, as his later career showed, he was capable of taking firm and unpopular stands on public issues. His wife Hannah Hoes, whom he married in 1807, died in 1819.

The standard biographies are by Shepard and Lynch.

WILLIAM HENRY HARRISON

was born in Charles City County, Virginia, on February 9, 1773. Joining the army in 1791, he was active in Indian fighting in the Northwest, became secretary of the Northwest Territory in 1798 and governor of Indiana in 1800. He married Anna Symmes in 1795. Growing discontent over white encroachments on Indian lands led to the formation of an Indian alliance under Tecumseh to resist further aggressions. In 1811 Harrison won a nominal victory over the Indians at Tippecanoe and in 1813 a more decisive one at the Battle of the Thames, where Tecumseh was killed.

After resigning from the army in 1814, Harrison had an obscure career in politics and diplomacy, ending up in twenty years as a county recorder in Ohio. Nominated for President in 1835 as a military hero whom the conservative politicians hoped to be able to control, he ran surprisingly well against Van Buren in 1836. Four years later he defeated Van Buren by an electoral vote of 234 to 60 but caught pneumonia and died in Washington a month after his inauguration, April 4, 1841. Harrison's qualities were those of a soldier rather than of a statesman or political leader. The standard biographies are by Cleaves and Goebel.

JOHN TYLER

was born in Charles City County, Virginia, on March 29, 1790. A William and Mary graduate, he entered law practice and politics, serving in the House of Representatives (1816–21) and later as governor of Virginia (1825–27), and as senator. A thorough-going strict constructionist, he supported Crawford in 1824 and Jackson in 1828 but broke with Jackson over his Bank policy and became a member of the Southern state-rights group which cooperated with the Whigs. In 1836 he resigned from the Senate rather than follow instructions from the Virginia legislature to vote for a resolution expunging censure of Jackson from the Senate record.

Elected Vice President on the Whig ticket in 1840, Tyler succeeded to the presidency on Harrison's death. His strict-constructionist views soon caused a split with the Henry Clay wing of the Whig party and a stalemate on domestic questions. Tyler's more considerable achievements were his support of the Webster-Ashburton Treaty with Britain and his success in bringing about the annexation of Texas through joint congressional resolution.

After his presidency he lived in retirement in Virginia until the outbreak of the Civil War when he emerged briefly as chairman of a peace convention and then as delegate to the provisional Congress of the Confederacy. He died on January 18, 1862. He was married first to Letitia Christian March in 1813 and, two years after her death in 1842, to Julia Gardiner. Witty, amiable, courteous, Tyler was a Virginia gentleman whose presidency was hamstrung by the basic contradiction between his own ideas and those of the party which put him on the ticket as Vice President. The standard biographies are by Chitwood and Tyler.

JAMES KNOX POLK

was born in Mecklenburg County, North Carolina, on November 2, 1795. A graduate of the University of North Carolina, he moved west to Tennessee, was admitted to the bar and soon became prominent in state politics. In 1825 he was elected to the House of Representatives where he opposed Adams and, after 1829, became Jackson's floor leader in the fight against the Bank. In 1835 he became Speaker of the House. In 1839 he was elected governor of Tennessee but was beaten in tries for re-election in 1841 and 1843.

The supporters of Van Buren for the Democratic nomination in 1844 counted on Polk as his running mate; but, when Van Buren's stand on Texas alienated Southern support, the convention swung to Polk on the ninth ballot. He was elected over Henry Clay, the Whig candidate, by an electoral vote of 170 to 105. Rapidly disillusioning those who thought that he would not run his own administration, Polk proceeded steadily and precisely to achieve four major objectives—the acquisition of California, the settlement of the Oregon question, the reduction of the tariff and the establishment of the independent treasury. He also enlarged the Monroe Doctrine to exclude all non-American intervention in American affairs, whether forcible or not, and he forced Mexico into a war which he waged to a successful conclusion. His wife Sarah Childress, whom he married in 1824, was a woman of charm and ability. Polk died in Nashville, Tennessee, on June 15, 1849.

Serious, hardworking, lacking in color, Polk has long been underrated by historians who mistakenly regarded him as a slaveholders' puppet; in fact, few presidents have so thoroughly controlled their own administration or have so ably accomplished the purposes they set for themselves. Polk's *Diary* reflects the mood and problems of his presidency. The standard biography is by McCormac.

ZACHARY TAYLOR

was born at Montebello, Orange County, Virginia, on November 24, 1784. Embarking on a military career in 1808, Taylor fought in the War of 1812, the Black Hawk War and the Seminole War, holding in between garrison jobs on the frontier or desk jobs in Washington. A brigadier general as a result of his victory over the Seminoles at Lake Okeechobee (1837), Taylor held a succession of Southwestern commands and in 1846 established a base on the Rio Grande, where his forces engaged in hostilities which precipitated the war with Mexico. He captured Monterrey in Sept., 1846, and, disregarding Polk's orders to stay on the defensive, defeated Santa Anna at Buena Vista in February, 1847, ending the war in the northern provinces.

Though Taylor had never cast a vote for President, his party affiliations were Whiggish, and his availability was increased by his difficulties with Polk. He was elected President over the Democrat Lewis Cass by an electoral vote of 163 to 127. During the revival of the slavery controversy, which was to result in the Compromise of 1850, Taylor began to take an increasingly firm stand against appeasing the South; but he died in Washington on July 9, 1850, in the midst of the fight over the Compromise. He married Margaret Mackall Smith in 1810. His bluff and simple soldierly qualities won him the name of Old Rough and Ready. During his brief term as President he displayed a growing insight into political questions. The standard biographies are by Hamilton and by Bent and McKinley.

MILLARD FILLMORE

was born at Locke, Cayuga County, New York, on January 7, 1800. A lawyer, he entered politics as an Antimason under the sponsorship of Thurlow Weed, editor and party boss, and subsequently followed Weed into the Whig party. He served in the House of Representatives (1833–35 and 1837–43) and played a leading role in writing the tariff of 1842. Defeated for governor of New York in 1844, he became comptroller in 1848, was put on the Whig ticket with Taylor as a concession to the Clay wing of the party and became President upon Taylor's death in 1850.

As President, Fillmore broke with Weed and William H. Seward and associated himself with the pro-Southern Whigs, supporting the Compromise of 1850. Defeated for the Whig nomination in 1852, he ran for President in 1856 as candidate of the American or Know-Nothing party, which sought to unite the country against foreigners in the alleged hope of diverting it from the explosive slavery issue. Fillmore opposed Lincoln during the Civil War. He died in Buffalo on March 8, 1874. He was married in 1826 to Abigail Powers, who died in 1853, and in 1858 to Caroline Carmichael McIntosh. Urbane, gracious, colorless and weak, Fillmore was an undistinguished President. The standard biography is by Griffis.

FRANKLIN PIERCE

was born at Hillsboro, New Hampshire, on November 23, 1804. A Bowdoin graduate and lawyer, he won rapid political advancement in the Democratic party, in part because of the prestige of his father, Governor Benjamin Pierce. By 1831 he was Speaker of the New Hampshire House of Representatives; from 1833 to 1837 he served in the federal House and from 1837 to 1842 in the Senate. His wife, Jane Means Appleton, whom he had married in 1834, disliked Washington and the somewhat dissipated life led by Pierce; and in 1842 Pierce, resigning from the Senate, took up a successful law practice in Concord, New Hampshire.

During the Mexican War Pierce was a brigadier general. Thereafter he continued to oppose antislavery tendencies within the Democratic party. As a result, he was the Southern choice to break the deadlock at the Democratic convention of 1852 and was nominated on the 49th ballot. Pierce rolled up 254 electoral votes to 42 for Winfield Scott, the Whig candidate.

As President, Pierce followed a course of appeasing the South at home and of playing with schemes of territorial expansion abroad. The failure of both his foreign and domestic policies prevented his renomination; and he died in Concord, New Hampshire, on October 8, 1869, in relative obscurity. A kindly and courteous person, Pierce was weak, unstable and lacking in presidential qualities. The standard biography is by Nichols.

JAMES BUCHANAN

was born near Mercersburg, Pennsylvania, on April 23, 1791. A Dickinson graduate and a lawyer, he entered Pennsylvania politics as a Federalist. With the disappearance of the Federalist party, he became a Jacksonian Democrat. He served with ability in the House (1821–31), as minister to St. Petersburg (1832–33) and in the Senate (1834–45), and in 1845 became Polk's Secretary of State. Disappointed in the presidential nomination in 1852, Buchanan became minister to Britain in 1853 where he participated with other American diplomats in Europe in drafting the expansionist Ostend Manifesto.

In 1856 Buchanan received the Democratic nomination and won the election, gaining 174 electoral votes to 114 for John C. Frémont, the Republican candidate, and 8 for Millard Fillmore, American party. The growing crisis over slavery presented Buchanan with problems he lacked the will to tackle. His appeasement of the South alienated the Stephen Douglas wing of the Democratic party without reducing Southern militancy on slavery issues. While denying the right of secession, Buchanan also denied that the federal government could do anything about it. He supported the administration during the Civil War and died in Lancaster, Pennsylvania, on June 1, 1868.

The only President to remain a bachelor throughout his term, Buchanan used his charming niece Harriet Lane as White House hostess. Legalistic, indecisive and timorous as President, Buchanan filled his other public offices capably. The standard biography is by Curtis.

ABRAHAM LINCOLN

was born in Hardin (now Larue) County, Kentucky, on February 12, 1809. His family moved to Indiana and then to Illinois, and Lincoln gained what education he could along the way. While reading law, he worked in a store, managed a mill, surveyed, and split rails. In 1834 he went to the state legislature as a Whig and became the party's floor leader. For the next twenty years he remained in law practice in Springfield, except for a single term (1847–49) in Congress where he denounced the Mexican War. In 1855 he was a candidate for senator and in 1856 he joined the new Republican party.

A leading but unsuccessful candidate for the vice-presidential nomination with Frémont, Lincoln gained national attention in 1858 when, as Republican candidate for

senator from Illinois, he engaged in a series of debates with Stephen A. Douglas, the Democratic candidate. He lost the senatorial election, but continued to prepare the way for the 1860 Republican convention and was rewarded with the presidential nomination on the third ballot. He polled 180 electoral votes, as against the 123 of his three opponents, but had only a plurality of the popular vote.

From the start, Lincoln made clear that, unlike Buchanan, he believed the national government had the power to crush the rebellion. Not an abolitionist, he held the slavery issue subordinate to that of preserving the Union but soon perceived that the war could not be brought to a successful conclusion without freeing the slaves. His administration was hampered by the incompetence of many Union generals, the inexperience of the troops and the harassing political tactics both of the Republican Radicals, who favored a hard policy toward the South, and the Democratic Copperheads, who desired a negotiated peace. The Gettysburg Address of November 19, 1863, marks the high point in the record of American eloquence. His patient search for a winning combination finally brought Generals Ulysses S. Grant and William T. Sherman to the top; and their series of victories in 1864 dispelled the mutterings from both Radicals and Peace Democrats which at one time seemed to threaten Lincoln's re-election. He received 212 electoral votes to 21 for George B. McClellan, the Democratic candidate. His inaugural address urged leniency toward the South: "With malice toward none, with charity for all . . . let us strive on to finish the work we are in; to bind up the nation's wounds . . ." This policy aroused growing opposition on the part of the Republican Radicals, but Lincoln was shot by John Wilkes Booth at Ford's Theater, Washington, on April 14, 1865, before the matter could be put to test. He died the following day.

Lincoln's marriage to Mary Todd in 1842 was often unhappy and turbulent, in part because of his wife's pronounced instability. By his remarkable literary artistry, his essential patience and devotion, his profound sense of the importance of government by, for and of the people, by the manner of his life and of his death, Lincoln has won a unique place in the hearts of Americans. The standard biographies are by Sandburg, Herndon, Nicolay and Hay.

ANDREW JOHNSON

was born at Raleigh, North Carolina, on December 29, 1808. Self-educated, he became a tailor in Greeneville, Tennessee, but soon went into politics where he rose steadily. From 1843 to 1853 he served in the House of Representatives, 1853–57 as governor of Tennessee and in 1857 was elected Senator. Politically he was a Jacksonian Democrat, and his specialty was the fight for a more equitable land policy. Alone among the Southern Senators, he stood by the Union during the Civil War. In 1862 he became war governor of Tennessee and carried out a thankless and difficult job with great courage. Johnson became Lincoln's running mate in 1864 as result of an attempt to give the ticket a nonpartisan and nonsectional character. Succeeding to the presidency on Lincoln's death, Johnson sought to carry out his policy but without his political skill. The result was a hopeless conflict with the Radical Republicans who dominated Congress, passed measures over Johnson's vetoes and attempted to limit the power of the executive concerning appointments and removals. The conflict culminated with Johnson's impeachment for attempting to remove his disloyal Secretary of War in defiance of the Tenure of Office Act which required senatorial concurrence for such dismissals. The opposition failed by one vote to get the two-thirds necessary for conviction.

After his presidency, Johnson maintained an interest in politics and in 1875 was elected to the Senate. He died near Carter Station, Tennessee, on July 31, 1875. He married Eliza McCardle in 1827. An honest, courageous and intelligent man, Johnson lacked the tact, patience and self-control to be an effective President.

The standard biographies are by Winston, Stryker and Milton.

ULYSSES SIMPSON GRANT

was born (as Hiram Ulysses Grant) at Point Pleasant, Ohio, on April 27, 1822. He finished West Point in 1843 and served without particular distinction in the Mexican War. In 1848 he married Julia Dent. He resigned from the army in 1854, following warnings from his commanding officer about his drinking habits, and for the next six years held a wide variety of jobs in the Middle West. With the outbreak of the Civil War, he sought a command and soon, to his surprise, was made a brigadier general. His continuing successes in the western theaters, culminating in the capture of Vicksburg in 1863, brought him national fame and soon the command of all the Union armies. His dogged, implacable policy of concentrating on dividing and destroying the Confederate armies brought the war to an end in 1865. In 1866 he was made full general.

Grant's relations with Johnson grew steadily worse; and in 1868, as the Republican candidate for President, Grant was elected with 214 electoral votes to 80 for the Democrat Horatio Seymour. From the start Grant showed his unfitness for the office. His cabinet was weak, his do-

mestic policy was confused, many of his intimate associates were corrupt. The notable achievement in foreign affairs was the settlement of controversies with Great Britain in the Treaty of London (1871), negotiated by his able Secretary of State, Hamilton Fish.

Nominated for a second term, he defeated Horace Greeley, the Democratic and Liberal Republican candidate, 286 votes to 63. The Panic of 1873 created difficulties for his second term.

After retiring from office, Grant toured Europe for two years and returned in time to accede to a third-term boom, but was beaten in the convention of 1880. Illness and bad business judgment darkened his last years, but he worked steadily at the *Personal Memoirs* which were to be so successful when published after his death at Mount McGregor, near Saratoga, New York, on July 23, 1885. Inarticulate, taciturn, loyal to his friends, he was an able general who should never have accepted the presidency. The standard biographies are by Hesseltine and Woodward.

RUTHERFORD BIRCHARD HAYES

was born at Delaware, Ohio, on October 4, 1822. A graduate of Kenyon College and the Harvard Law School, he practiced law in Sandusky and then in Cincinnati, Ohio. In 1852 he married Lucy Webb. A Whig, he joined the Republican party in 1855. During the Civil War he rose to the rank of major general. He served in Congress from 1865 to 1867 and then confirmed a reputation for honesty and efficiency in two terms as governor of Ohio. His re-election as governor in 1875 made him the logical candidate for those Republicans who wished to stop James G. Blaine in 1876, and he was successfully nominated.

The result of the election was for some time in doubt and hinged upon disputed returns from South Carolina, Louisiana, Florida and Oregon. Samuel J. Tilden, the Democratic candidate, had the larger popular vote but was adjudged by the strictly partisan decisions of the Electoral Commission to have one less electoral vote, 185 to 184. The national acceptance of this result was due in part to the general understanding that Hayes would pursue a conciliatory policy toward the South. He withdrew the troops from the South, took a conservative position on financial and labor issues and urged civil service reform.

Hayes served only one term by his own wish and spent the rest of his life in various humanitarian endeavors. He died in Fremont, Ohio, on January 17 1893. A hard-working, conscientious, sensible man, Hayes represented the best type of Republican of his day. The standard biographies are by Eckenrode and Williams.

JAMES ABRAM GARFIELD,

the last President to be born in a log cabin, was born at Cuyahoga County, Ohio, on November 19, 1831. A Williams graduate, he taught school for a time and entered Republican politics in Ohio. In 1858 he married Lucretia Rudolph. During the Civil War he had a promising career, rising to the rank of major general of volunteers; but in 1863 he was elected to the House of Representatives where he served until 1880. His oratorical and parliamentary abilities soon made him the leading Republican in the House, though his record was marred by his unorthodox acceptance of a fee in the DeGolyer paving contract case and by suspicions of his complicity in the Crédit Mobilier scandal.

In 1880 Garfield was elected to the Senate, but instead became the presidential candidate on the 36th ballot as a result of a deadlock in the Republican convention. He gained 214 electoral votes to 155 for General Winfield Scott Hancock, the Democratic candidate. Garfield's administration was barely under way when he was shot by Charles J. Guiteau, a disappointed office seeker, in July. He died in Elberon, New Jersey, on September 19, 1881. An attractive and eloquent man, he was much beloved in his day.

The standard biographies are by Smith and Caldwell.

CHESTER ALAN ARTHUR

was born at Fairfield, Vermont, on October 5, 1830. A graduate of Union College, he became a successful New York lawyer. In 1859 he married Ellen Herndon. During the Civil War he held administrative jobs in the Republican state administration and in 1871 was appointed collector of the Port of New York by Grant. This post gave him control over considerable patronage; and, though not personally corrupt, Arthur managed his power in the interests of the New York machine so openly that President Hayes in 1877 called for an investigation, and in 1878 Arthur was suspended from his responsibilities.

In 1880 Arthur was nominated for Vice President in the hope of conciliating the followers of Grant and the powerful New York machine. As President on Garfield's assassination, Arthur, stepping out of his familiar role as spoilsman, backed civil service reform, reorganized the cabinet and prosecuted political associates accused of post office graft. Losing machine support and failing to gain the reformers, he was not renominated. He died in New York City on November 18, 1886. A tall, handsome, dignified man with real administrative abilities, he was a better President than his previous record promised. The standard biography is by Howe.

STEPHEN GROVER CLEVELAND

was born at Caldwell, New Jersey, on March 18, 1837. He was admitted to the bar in Buffalo, New York, in 1859 and lived there as a lawyer, with occasional incursions into Democratic politics, for more than twenty years. He did not participate in the Civil War. As mayor of Buffalo in 1881, he carried through a reform program so ably that the Democrats ran him successfully for governor in 1882. In 1884 he won the Democratic nomination for President. The campaign contrasted Cleveland's spotless public career with the uncertain record of James G. Blaine, the Republican candidate, and Cleveland received enough Mugwump (independent Republican) support to win by 219 to 182 electoral votes.

As President, Cleveland pushed civil service reform, opposed the pension grab and attacked the high tariff rates. While in the White House he married Frances Folsom (1886). Renominated in 1888, Cleveland was defeated by Benjamin Harrison, polling more popular but fewer electoral votes. In 1892 he was re-elected over Harrison, 277 to 145, with 22 votes for James B. Weaver, the Populist candidate. When the Panic of 1893 burst upon the country, Cleveland's attempts to solve it by sound-money measures alienated the free-silver wing of the party, while his tariff policy alienated the protectionists. In 1894 he sent troops to break the Pullman strike. In foreign affairs his firmness caused Great Britain to back down in the Venezuela border dispute.

In his last years Cleveland was an active and much respected public figure. He died in Princeton, New Jersey, on June 24, 1908. An honest, stubborn, high-principled man, Cleveland was an old-fashioned liberal in the nineteenth-century sense who was baffled by the new problems of industrial society. The standard biographies are by Nevins and McElroy.

BENJAMIN HARRISON

was born in North Bend, Ohio, on August 20, 1833, the grandson of William Henry Harrison. A graduate of Miami University, he took up the law in Indiana and became active in Republican politics. In 1853 he married Caroline Lavinia Scott. During the Civil War he rose to the rank of brigadier general. A sound-money Republican, he was elected senator from Indiana in 1880 and in 1888 received the Republican nomination for President on the 8th ballot. Though behind on the popular vote, he won over Grover Cleveland in the electoral college by 233 to 168.

As President, Benjamin Harrison failed to please either the bosses or the reform element in the party. In foreign affairs he backed Secretary of State Blaine whose policy foreshadowed later American imperialism. In 1892 Harrison was renominated, but Cleveland beat him in the election. His wife died in the White House in 1892, and Harrison married her niece, Mary Scott (Lord) Dimmick, in 1896. After his presidency, he resumed law practice. He died in Indianapolis, Indiana, on March 13, 1901. Harrison was an honest man of very medium abilities.

WILLIAM McKINLEY

was born in Niles, Ohio, on January 29, 1843. A graduate of Allegheny College, he rose from the ranks to become a major in the Civil War. Subsequently he opened a law office in Canton, Ohio, and in 1871 married Ida Saxton. Elected to Congress in 1876, he served there steadily till 1891, except for 1883–85. His faithful advocacy of business interests culminated in the passage of the highly protective McKinley Tariff of 1890. With the support of Mark Hanna, a shrewd Cleveland businessman interested in safeguarding tariff protection, McKinley became governor of Ohio in 1892 and Republican presidential candidate in 1896. The business community, alarmed by the progressivism of William Jennings Bryan, the Democratic candidate, spent considerable money to assure McKinley's victory which was by the margin of 271 to 176 in the electoral college.

The chief event of McKinley's administration was the war with Spain which resulted in our acquisition of the Philippines and other islands. With imperialism as an issue, McKinley defeated Bryan again in the election of 1900 by 292 to 155. On September 6, 1901, he was shot at Buffalo by Leon F. Czolgosz, an anarchist, and he died there on September 14. McKinley was a characteristic Republican politician dedicated to the service of the business community. The standard biography is by Olcott.

THEODORE ROOSEVELT

was born in New York City on October 27, 1858. A Harvard graduate, he was early interested in ranching, in politics and in writing picturesque historical narratives. He was a Republican member of the New York Assembly in 1882–84, an unsuccessful candidate for mayor of New York in 1886, a U. S. Civil Service Commissioner under Harrison, Police Commissioner of New York City in 1895 and Assistant Secretary of the Navy under McKinley in 1897. After exuding a belligerence which helped bring on the war with Spain, he resigned in 1898 to help organize a volunteer regiment named the Rough Riders and take a more direct part in the war. Always publicity-shrewd, he won the New York gubernatorial nomination in 1898 in spite of pronounced lack of enthusiasm on the part of the bosses.

After two years of T.R. in Albany, the New York bosses succeeded in getting him the vice-presidential nomination in 1900.

Roosevelt accepted it with reluctance, feeling that his career had been ruined. As President on McKinley's assassination, he perceived the new popular mood of progressivism and initiated a policy of trust busting, designed to control giant corporations. He also strengthened government powers over interstate commerce and launched a conservation program to save natural resources. In foreign affairs he pursued a truculent policy, permitting the instigation of a revolt in Panamá to dispose of Colombian objections to the Panama Canal and helping to maintain the balance of power in the East by bringing the Russo-Japanese war to an end. In 1904 he decisively defeated Alton B. Parker, his conservative Democratic opponent, by an electoral margin of 336 to 140.

Following his second term he went big-game hunting in Africa and toured Europe. On his return to the United States, his increasing coldness toward Taft led him to overlook his earlier disclaimer of third-term ambitions and to re-enter politics. Defeated by the machine in the Republican convention of 1912, he organized the Progressive party and polled more votes than Taft, though the split brought about the election of Wilson. From 1915 on, Roosevelt strongly favored intervention in the European war. He became deeply embittered at Wilson's refusal to allow him to raise a volunteer division. He died in Oyster Bay, New York, on January 6, 1919. He was married twice: in 1880 to Alice Hathaway Lee, who died in 1884; and in 1886 to Edith Kermit Carow.

The athletic advocate of the strenuous life, with his high voice, prominent teeth and thick glasses, Roosevelt captured the imagination of the American people. More sober judgment suggests that, so far as his progressivism was concerned, his bark was worse than his bite, but he was one of the great personalities of American history. The standard biography is by Pringle.

WILLIAM HOWARD TAFT

was born in Cincinnati, Ohio, on September 15, 1857. A Yale graduate, he entered Ohio Republican politics in the eighteen eighties. In 1886 he married Helen Herron. From 1887 to 1890, he served on the Ohio superior court; 1890–92, as solicitor general of the United States; 1892–1900, on the federal circuit court. In 1900 McKinley appointed him president of the Philippine Commission and in 1901 governor general. Taft had great success in pacifying the Filipinos, solving the problem of the church lands, improving economic conditions and establishing limited self-government. His period as Secretary of War 1904–08 further demonstrated his capacity as administrator and conciliator; and he was Roosevelt's hand-picked successor in 1908. In the election he polled 321 electoral votes to 162 for William Jennings Bryan.

As President, though he carried on many of Roosevelt's policies, Taft got into increasing trouble with the progressive wing of the party and displayed mounting irritability and indecision. After his defeat in 1912, he became professor of constitutional law at Yale. In 1921 he was appointed Chief Justice of the United States. He died in Washington on March 8, 1930. Enormously large, deliberate and good-humored, Taft excelled as an administrator and judge, not as a political leader.

The standard biography is by Pringle.

THOMAS WOODROW WILSON

was born in Staunton, Virginia, on December 28, 1856. A Princeton graduate, he turned from law practice to post-graduate work in political science at Johns Hopkins University, receiving his Ph.D. in 1886. He taught at Bryn Mawr, Wesleyan and Princeton, and in 1902 was made president of Princeton. After an unsuccessful attempt to democratize the social life of Princeton, he welcomed an invitation in 1910 to be the Democratic gubernatorial candidate in New Jersey. His success in fighting the machine and putting through a reform program attracted national attention.

In 1912, after a protracted contest at Baltimore, Wilson won the Democratic nomination on the 46th ballot. In the election he received 435 electoral votes to 88 for Roosevelt and 8 for Taft. During his first term Wilson proceeded under the standard of the New Freedom to enact a program of domestic reform, including the Federal Reserve Act, the Clayton Anti-trust Act, the establishment of the Federal Trade Commission and other measures designed to restore competition in the face of the great monopolies. In foreign affairs, while privately sympathetic with the Allies, he strove to maintain strict neutrality in the European war and warned both sides against encroachments on American interests.

Re-elected in 1916 as a peace candidate, he tried to mediate between the warring nations; but, when the Germans resumed unrestricted submarine warfare in 1917, Wilson brought the United States into what he now believed was a war to make the world safe for democracy. He supplied the classic formulations of Allied war aims; and the armistice of November, 1918, was negotiated on the basis of Wilson's Fourteen Points. In 1919 he strove at Versailles to lay the foundations for enduring peace. He accepted the imperfections of the Versailles Treaty in the expectation that they could be remedied by action within the

League of Nations. He probably could have secured ratification of the treaty if he had adopted a more conciliatory attitude toward the mild reservationists; but his insistence on all or nothing eventually caused the diehard isolationists and diehard Wilsonites to unite in rejecting a compromise.

In September, 1919, Wilson suffered a paralytic stroke which limited his future activity. After the presidency he lived on in retirement in Washington, dying February 3, 1924. He was married twice—in 1885 to Ellen Louise Axson, who died in 1914, and in 1915 to Edith Bolling Galt. A man of high principle, inspiring eloquence and great intellectual ability, Wilson was the first leader to fire the imagination of the masses of the world with the vision of world peace. The standard biography is by Baker.

WARREN GAMALIEL HARDING

was born in Morrow County, Ohio, on November 2, 1865. After attending Ohio Central College, Harding became interested in journalism and in 1884 bought the *Marion* (Ohio) *Star*. In 1891 he married a wealthy widow, Florence Kling De Wolfe. As his paper prospered, he entered Republican politics, serving as state senator (1899–1903), and as lieutenant governor (1904–06). In 1910 he was defeated for governor but in 1914 was elected to the Senate. His reputation as orator made him keynoter in the 1916 convention.

When the 1920 Republican convention was deadlocked between Leonard Wood and Frank O. Lowden, Harding was made the dark-horse nominee on his solemn affirmation that there was no reason in his past that he should not be. Straddling the League question, Harding was elected easily, with 404 electoral votes to 127 for James M. Cox, his Democratic opponent. His cabinet contained some able men, but also some manifestly unfit for public office. Harding's own intimates were mediocre when they were not corrupt. The impending disclosure of scandals in the Interior and Justice departments and in the Veterans' Bureau, as well as political setbacks, profoundly worried him. On his return from Alaska in 1923, he died suddenly at San Francisco on August 2. A handsome and genial man, undiscriminating in his associates, lacking in political ideas or fortitude, Harding was totally unfitted for the presidency.

JOHN CALVIN COOLIDGE

was born in Plymouth, Vermont, on July 4, 1872. An Amherst graduate, he went into law practice at Northampton, Massachusetts, in 1897. He married Grace Anna Goodhue in 1905. He entered Republican state politics, becoming successively mayor of Northampton, state senator, lieutenant governor and, in 1919, governor. His conduct in regard to the Boston police strike in 1919 won him a somewhat undeserved reputation for decisive action and brought him the Republican vice-presidential nomination in 1920. After Harding's death Coolidge handled the Washington scandals with care and finally managed to save the Republican party from public blame for the widespread corruption.

In 1924 Coolidge won re-election without difficulty, getting 382 electoral votes to 136 for the Democrat, John W. Davis, and 13 for Robert M. La Follette running on the Progressive ticket. His second term, like his first, was characterized by deference to big business, indifference to the underprivileged and a general satisfaction with the existing economic order. He stated that he did not choose to run in 1928, but he may have hoped to be drafted anyway.

After his presidency, Coolidge lived quietly in Northampton, writing an unilluminating *Autobiography* and conducting a syndicated column. He died in Northampton, Massachusetts, on January 5, 1933. His dry, Yankee humor, his frugality and glumness made him a paradoxically popular President in the boom period. The standard biographies are by White and Fuess.

HERBERT CLARK HOOVER

was born at West Branch, Iowa, an August 10, 1874. A Stanford graduate, he worked from 1895 to 1913 as a mining engineer and consultant in North America, Europe, Asia, Africa and Australia. In 1899 he married Lou Henry. During the First World War he served with distinction as chairman of the American Relief Committee in London, as chairman of the Commission for Relief in Belgium and as United States Food Administrator. His political affiliations were still sufficiently indeterminate for him to be mentioned as a possibility for both Republican and Democratic nominations in 1920; but after the election he served both Harding and Coolidge as Secretary of Commerce.

In the election of 1928 Hoover received 444 electoral votes to 87 for Alfred E. Smith, the Democratic candidate. He soon faced the worst depression in the nation's history; but his attacks upon it were hampered by his devotion to the theory that the forces which brought the crisis would soon bring the revival, and then by his belief that in too many areas the federal government had no power to act. In a succession of vetoes he struck down measures proposing a national employment system or national relief; he reduced income tax rates; and only at the end of his term did he yield to popular pressure and set up agencies to make emergency loans (mostly to large business).

After his 1932 defeat, Hoover returned to private business. In 1946, President Truman charged him with various world food missions; and from 1947–49, he was head of the Commission on Organization of the Executive Branch of the Government.

FRANKLIN DELANO ROOSEVELT

was born in Hyde Park, New York, on January 30, 1882. A Harvard graduate, he attended Columbia Law School and was admitted to the New York bar. In 1910 he was elected to the New York state senate as a Democrat. Re-elected in 1912, he was appointed Assistant Secretary of the Navy by Woodrow Wilson in 1913. In 1920 his radiant personality and his war services resulted in his nomination for Vice President as James M. Cox's running mate. After his defeat, he returned to law practice in New York. In August, 1921, Roosevelt was stricken with infantile paralysis while at Campobello, New Brunswick. After a long and gallant fight against the disease he recovered partial use of his legs. In 1924 and 1928 he led the fight at the Democratic national conventions for the nomination of Governor Alfred E. Smith of New York; and in 1928 Roosevelt was himself induced to run for governor of New York. He was elected and was re-elected in 1930.

In 1932 Roosevelt received the Democratic nomination for President and immediately launched a campaign which brought new spirit to a weary and discouraged nation. He won the election over Herbert Hoover by a margin of 472 to 59 in the electoral college. His first term was characterized by an unfolding of the New Deal program, with greater benefits for labor, the farmers and the unemployed, and the progressive estrangement of most of the business community.

At an early stage Roosevelt became aware of the menace to world peace involved in the existence of totalitarian fascism, and from 1937 on he tried to focus public attention on the trend of events in Europe and Asia. As a result he was widely denounced as a warmonger. He was re-elected in 1936 over Alfred M. Landon by the overwhelming electoral margin of 523 to 8; and the gathering international crisis caused him to decide to run again in 1940. He defeated Wendell L. Willkie, 449 to 82.

Roosevelt's program to bring maximum aid to Britain and, after June, 1941, to Russia was bitterly opposed by a small but organized minority, until the Japanese attack on Pearl Harbor restored national unity. During the war Roosevelt shelved the New Deal in the interests of conciliating the business community, both in order to get full production during the war and to prepare the way for a united acceptance of the peace settlements after the war. A series of conferences with Winston Churchill and Joseph Stalin laid down the bases for the postwar world. In 1944 he was elected to a fourth term, running against Governor Thomas E. Dewey.

On April 12, 1945, Roosevelt died at Warm Springs, Georgia, shortly after his return from the Yalta Conference. His wife, Anna Eleanor Roosevelt, whom he married in 1905, is a woman of great ability who made significant contributions to her husband's policies. No President has been faced with so many staggering responsibilities, both at home and abroad, as Franklin Roosevelt. His success in bringing America safely through the greatest depression and the greatest war in world history was an accomplishment of the highest statesmanship; and his buoyant, fighting personality has left an indelible impression.

HARRY S. TRUMAN

was born on a farm near Lamar, Missouri, on May 8, 1884. During the First World War he served in France with the 129th Field Artillery. After engaging briefly and unsuccessfully in the haberdashery business in Kansas City, Truman entered local politics. Under the sponsorship of Thomas Pendergast, Democratic boss of Missouri, he held a number of local offices, preserving his personal honesty in the midst of a notoriously corrupt political machine. In 1934 he was elected to the Senate and was re-elected in 1940. During his first term he was a loyal but quiet supporter of the New Deal; but in the course of his second term, an appointment as head of a Senate committee to investigate war production brought out his special qualities of honesty, common sense and hard work, and he won widespread respect.

Elected Vice President in 1944, Truman became President upon Roosevelt's death in 1945 and immediately had to face complex postwar problems, both domestic and foreign. His first attempts did not meet with marked success, and the Republicans won control of Congress in 1946. The next two years were distinguished by the Truman Doctrine, the Marshall Plan and civil-rights proposals; and his general record, highlighted by a vigorous Fair Deal campaign, brought about his unexpected and impressive re-election in 1948.

Truman's second term has been chiefly concerned with the Cold War with the Soviet Union, the implementing of the North Atlantic Pact, the United Nations police action in Korea, and the vast rearmament program with its accompanying problems of economic stabilization. In 1951, the Republicans seized upon his recall of General Douglas MacArthur to attack the Administration's Far Eastern policy. However, several weeks of investigation by Congress yielded inconclusive results.

Presidents and Vice Presidents of the U. S.

Presidents & (parties[1])	Born	State of birth	Died	Term	Age at inaug.	Age at death	Vice Presidents[2]
1. Washington (F)[3]	Feb. 22, 1732	Va.	Dec. 14, 1799	1789–1797	57	67	1. John Adams
2. J. Adams (F)	Oct. 30, 1735	Mass.	July 4, 1826	1797–1801	61	90	2. Thomas Jefferson[4]
3. Jefferson (D-R)	Apr. 13, 1743	Va.	July 4, 1826	1801–1809	57	83	3. Aaron Burr
							4. George Clinton
4. Madison (D-R)	Mar. 16, 1751	Va.	June 28, 1836	1809–1817	57	85	George Clinton[5]
							5. Elbridge Gerry[6]
5. Monroe (D-R)	Apr. 28, 1758	Va.	July 4, 1831	1817–1825	58	73	6. Daniel D. Tompkins
6. J. Q. Adams (D-R)	July 11, 1767	Mass.	Feb. 23, 1848	1825–1829	57	80	7. John C. Calhoun
7. Jackson (D)	Mar. 15, 1767	S. C.	June 8, 1845	1829–1837	61	78	John C. Calhoun[7]
							8. Martin Van Buren
8. Van Buren (D)	Dec. 5, 1782	N. Y.	July 24, 1862	1837–1841	54	79	9. Richard M. Johnson
9. W. H. Harrison (W)[8]	Feb. 9, 1773	Va.	Apr. 4, 1841	1841–1841	68	68	10. John Tyler
10. Tyler (W)	Mar. 29, 1790	Va.	Jan. 18, 1862	1841–1845	51	71	
11. Polk (D)	Nov. 2, 1795	N. C.	June 15, 1849	1845–1849	49	53	11. George M. Dallas
12. Taylor (W)[8]	Nov. 24, 1784	Va.	July 9, 1850	1849–1850	64	65	12. Millard Fillmore
13. Fillmore (W)	Jan. 7, 1800	N. Y.	Mar. 8, 1874	1850–1853	50	74	
14. Pierce (D)	Nov. 23, 1804	N. H.	Oct. 8, 1869	1853–1857	48	64	13. William R. King[9]
15. Buchanan (D)	Apr. 23, 1791	Pa.	June 1, 1868	1857–1861	65	77	14. John C. Breckinridge
16. Lincoln (R)[10]	Feb. 12, 1809	Ky.	Apr. 15, 1865	1861–1865	52	56	15. Hannibal Hamlin
							16. Andrew Johnson
17. Johnson (R)	Dec. 29, 1808	N. C.	July 31, 1875	1865–1869	56	66	
18. Grant (R)	Apr. 27, 1822	Ohio	July 23, 1885	1869–1877	46	63	17. Schuyler Colfax
							18. Henry Wilson[11]
19. Hayes (R)	Oct. 4, 1822	Ohio	Jan. 17, 1893	1877–1881	54	70	19. William A. Wheeler
20. Garfield (R)[12]	Nov. 19, 1831	Ohio	Sept. 19, 1881	1881–1881	49	49	20. Chester A. Arthur
21. Arthur (R)	Oct. 5, 1830	Vt.	Nov. 18, 1886	1881–1885	50	56	
22. Cleveland (D)	Mar. 18, 1837	N. J.	June 24, 1908	1885–1889	47	71	21. Thomas A. Hendricks[13]
23. B. Harrison (R)	Aug. 20, 1833	Ohio	Mar. 13, 1901	1889–1893	55	67	22. Levi P. Morton
Cleveland (D)[14]				1893–1897	..	..	23. Adlai E. Stevenson
24. McKinley (R)[15]	Jan. 29, 1843	Ohio	Sept. 14, 1901	1897–1901	54	58	24. Garret A. Hobart[16]
							25. Theodore Roosevelt
25. T. Roosevelt (R)	Oct. 27, 1858	N. Y.	Jan. 6, 1919	1901–1909	42	60	26. Charles W. Fairbanks
26. Taft (R)	Sept. 15, 1857	Ohio	Mar. 8, 1930	1909–1913	51	72	27 James S. Sherman[17]
27. Wilson (D)	Dec. 28, 1856	Va.	Feb. 3, 1924	1913–1921	56	67	28. Thomas R. Marshall
28. Harding (R)[8]	Nov. 2, 1865	Ohio	Aug. 2, 1923	1921–1923	55	57	29. Calvin Coolidge
29. Coolidge (R)	July 4, 1872	Vt.	Jan. 5, 1933	1923–1929	51	60	30. Charles G. Dawes
30. Hoover (R)	Aug. 10, 1874	Iowa		1929–1933	54	..	31. Charles Curtis
31. F. D. Roosevelt (D)[8]	Jan. 30, 1882	N. Y.	Apr. 12, 1945	1933–1945	51	63	32. John N. Garner
					..	..	33. Henry A. Wallace
					..	..	34. Harry S. Truman
32. Truman (D)	May 8, 1884	Mo.		1945–	60	..	35. Alben W. Barkley

[1] F—Federalist; D-R—Democratic-Republican; D—Democratic; W—Whig; R—Republican. [2] Same party as President, except Jefferson. [3] No party for first election. The party system in the U. S. made its appearance during Washington's first term. [4] Democratic-Republican. Only Vice President of different party from President. [5] Died in office Apr. 20, 1812. [6] Died in office Nov. 23, 1814. [7] Resigned Dec. 28, 1832, to become U. S. Senator. [8] Died in office. [9] Died in office Apr. 18, 1853. [10] Died in office (shot Apr. 14 by John Wilkes Booth). [11] Died in office Nov. 22, 1875. [12] Died in office (shot July 2 by Charles J. Guiteau). [13] Died in office Nov. 25, 1885. [14] Cleveland, in the second of his nonconsecutive terms, is sometimes considered the 24th President, McKinley the 25th, and so on to Truman, the 33rd President with such a system of counting. [15] Died in office (shot Sept. 6 by Leon F. Czolgosz). [16] Died in office Nov. 21, 1899. [17] Died in office Oct. 30, 1912.

Presidential Veto Power

When the President vetoes a bill, he must send it back to the house of origin with his reasons. If the veto is overriden by a two-thirds vote in each house, the bill becomes a law.

If, while Congress is still in session, the President keeps a bill for 10 days, Sundays excepted, without signing it, it becomes a law. However, if Congress adjourns within the 10-day period, the bill is killed. This is known as a *pocket veto.*

Annual Salaries of Federal Officials

President of the U. S.	$100,000
Vice President of the U. S.	30,000
Cabinet members	22,500
Undersecretaries of executive departments	17,000
Deputy Secretary of Defense	20,000
Secretary of the Army	18,000
Secretary of the Navy	18,000
Secretary of the Air Force	18,000
Senators	12,500
Representatives	12,500
Speaker of the House	30,000
Chief Justice of the Supreme Court	25,500
Associate Justices of the Supreme Court	25,000

Wives of the Presidents of the United States

President	Wife's name	Year and place of birth	Married	Died	Sons	Daughters
Washington	Mrs. Martha Dandridge Custis	1732, Va.	1759	1802	..	..
John Adams	Abigail Smith	1744, Mass.	1764	1818	3	2
Jefferson	Mrs. Martha Wayles Skelton	1748, Va.	1772	1782	1	5
Madison	Mrs. Dorothy "Dolly" Payne Todd	1772, N. C.	1794	1849	..	..
Monroe	Eliza Kortright	1768, N. Y.	1786	1830	..	2
J. Q. Adams	Louisa Catherine Johnson	1775, England	1797	1852	3	1
Jackson	Mrs. Rachel Donelson Robards	1767, Va.	1791	1828	..	..
Van Buren	Hannah Hoes	1783, N. Y.	1807	1819	4	..
W. H. Harrison	Anna Symmes	1775, N. J.	1795	1864	6	4
Tyler	Letitia Christian	1790, Va.	1813	1842	3	4
	Julia Gardiner	1820, N. Y.	1844	1889	5	2
Polk	Sarah Childress	1803, Tenn.	1824	1891	..	..
Taylor	Margaret Smith	1788, Md.	1810	1852	1	5
Fillmore	Abigail Powers	1798, N. Y.	1826	1853	1	1
	Mrs. Caroline Carmichael McIntosh	1813, N. J.	1858	1881	..	..
Pierce	Jane Means Appleton	1806, N. H.	1834	1863	3	..
Buchanan	(Unmarried)	....	....	....	..	..
Lincoln	Mary Todd	1818, Ky.	1842	1882	4	..
Johnson	Eliza McCardle	1810, Tenn.	1827	1876	3	2
Grant	Julia Dent	1826, Mo.	1848	1902	3	1
Hayes	Lucy Ware Webb	1831, Ohio	1852	1889	7	1
Garfield	Lucretia Rudolph	1832, Ohio	1858	1918	5	2
Arthur	Ellen Lewis Herndon	1837, Va.	1859	1880	2	1
Cleveland	Frances Folsom	1864, N. Y.	1886	1947	2	3
B. Harrison	Caroline Lavinia Scott	1832, Ohio	1853	1892	1	1
	Mrs. Mary Scott Lord Dimmick	1858, Pa.	1896	1948	..	1
McKinley	Ida Saxton	1847, Ohio	1871	1907	..	2
T. Roosevelt	Alice Hathaway Lee	1861, Mass.	1880	1884	..	1
	Edith Kermit Carow	1861, Conn.	1886	1948	4	1
Taft	Helen Herron	1861, Ohio	1886	1943	2	1
Wilson	Ellen Louise Axson	1860, Ga.	1885	1914	..	3
	Mrs. Edith Bolling Galt	1872, Va.	1915	....	..	..
Harding	Mrs. Florence Kling DeWolfe	1860, Ohio	1891	1924	..	..
Coolidge	Grace Anna Goodhue	1879, Vt.	1905	....	2	..
Hoover	Lou Henry	1875, Iowa	1899	1944	2	..
F. D. Roosevelt	Anna Eleanor Roosevelt	1884, N. Y.	1905	....	5	1
Truman	Bess Wallace	1885, Mo.	1919	....	..	1

National Committee Chairmen Since 1916

Source: Republican and Democratic National Committees.

Chairman and (state)	Term
Republican	
William R. Willcox (N. Y.)	1916–18
Will Hays (Ind.)	1918–21
John T. Adams (Iowa)	1921–24
William M. Butler (Mass.)	1924–28
Hubert Work (Colo.)	1928–29
Claudius H. Huston (Tenn.)	1929–30
Simeon D. Fess (Ohio)	1930–32
Everett Sanders (Ind.)	1932–34
Henry P. Fletcher (Pa.)	1934–36
John Hamilton (Kans.)	1936–40
Joseph W. Martin, Jr. (Mass.)	1940–42
Harrison E. Spangler (Iowa)	1942–44
Herbert Brownell, Jr. (N. Y.)	1944–46
Carroll Reece (Tenn.)	1946–48
Hugh D. Scott, Jr. (Pa.)	1948–49
Republican (Contd.)	
Guy G. Gabrielson (N. J.)	1949–
Democratic	
Vance McCormick (Pa.)	1916–19
Homer Cummings (Conn.)	1919–20
George White (Ohio)	1920–21
Cordell Hull (Tenn.)	1921–24
Clem Shaver (W. Va.)	1924–28
John J. Raskob (N. Y.)	1928–32
James A. Farley (N. Y.)	1932–40
Edward J. Flynn (N. Y.)	1940–43
Frank C. Walker (Mont.)	1943–44
Robert E. Hannegan (Mo.)	1944–47
J. Howard McGrath (R. I.)	1947–49
William M. Boyle, Jr. (Mo.)	1949–51
Frank E. McKinney	1951–

To find the year of the first session of a certain Congress, double the number of the Congress and add 1787. To find which Congress was holding its first session in any odd year, subtract 1787 from the year and divide by 2.

The Executive Departments

Adapted from *Congressional Directory* and *U. S. Government Organization Manual.*

STATE. The Secretary of State has the principal responsibility, under the President, for the determination of the policy of the government in relation to international problems. He is charged with the conduct of negotiations pertaining to the protection of American rights and interests throughout the world, and the promotion of beneficial intercourse between the United States and other countries. He also performs certain domestic duties, such as having custody of the seal of the United States and publishing the laws enacted by Congress.

A Department of Foreign Affairs was established in 1781 and was reconstituted July 27, 1789, following adoption of the Constitution. The name was changed Sept. 15, 1789, to the Department of State.

TREASURY. The Secretary of the Treasury is charged by law with the management of the national finances. He superintends the collection of the revenue; grants warrants for money drawn from the Treasury in pursuance of appropriations made by law, and for the payment of moneys into the Treasury; directs the forms of keeping and rendering public accounts; prepares plans for the improvement of the revenue and for the support of the public credit; and submits a report annually to Congress on the condition of the public finances, and the results of activities under his supervision, which include, among others, the coinage and printing of money, and the administration of the Coast Guard, Narcotics and Secret Services.

The Department of the Treasury was created Sept. 2, 1789.

DEFENSE. The Secretary of Defense is responsible for supporting and defending the Constitution against all enemies, either foreign or domestic, and maintaining, by timely and effective military action, the security of the United States and its possessions and areas vital to its interest. He is charged with advancing the national policies and interests of the United States, and with safeguarding internal security as directed by higher authority. For these purposes, he may conduct integrated military operations on the land, on the sea, and in the air.

On July 26, 1947, the National Military Establishment was created by the National Security Act of 1947. The name was changed Aug. 10, 1949, to the Department of Defense. Subordinate to the Secretary of Defense are the Secretaries of the Army, of the Navy, and of the Air Force. These three Secretaries have neither Cabinet rank nor direct access to the President.

JUSTICE. The Attorney General is the chief law officer of the Federal Government. He represents the United States in legal matters generally and gives advice and opinions when requested by the President or by the heads of the executive departments. He appears in the Supreme Court in cases of exceptional importance, exercises general superintendence over United States district attorneys and marshals in the various judicial districts, and provides special counsel for the United States when the character of the interests involved requires such action. The Federal Bureau of Investigation and the Bureau of Prisons are under his direction.

The office of Attorney General was created Sept. 24, 1789. Although he was one of the original Cabinet members, he was not head of a department until June 22, 1870, when the Department of Justice was created.

POST OFFICE. The Postmaster General is executive head of the Postal Service. Subject to approval of the President, he makes postal treaties with foreign governments.

The office of Postmaster General and a temporary post office system were created Sept. 22, 1789. The first detailed provisions for a department were made Feb. 20, 1792, and later legislation developed the Postal System. The Postmaster General did not become a Cabinet member until 1829, and the department did not receive executive status until June 8, 1872.

INTERIOR. The Secretary of the Interior has the primary task of developing and conserving the natural resources of the United States and its territories for this and future generations. He is charged with the supervision of public business relating to such offices as the General Land Office, Bureau of Reclamation, Geological Survey, Office of Indian Affairs, National Park Service, Bureau of Mines, Division of Territories and Island Possessions, etc.

The Department of the Interior was created Mar. 3, 1849.

AGRICULTURE. The Secretary of Agriculture is charged with acquiring and diffusing among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of the term. For that purpose he conducts a comprehensive research and educational program. He is also required to administer many other Federal laws which relate to marketing and distribution of agricultural products; the regulation of interstate commerce in food, fiber and related products; the protection

and management of the national forests, farm credit, agricultural adjustment, conservation and land use, farm tenancy, and rural rehabilitation and electrification.

The Department of Agriculture was created May 15, 1862, and administered by a Commissioner of Agriculture until Feb. 9, 1889, when it was made an executive department and the office of Secretary was created.

COMMERCE. The Secretary of Commerce directs such activities as population, agriculture and other censuses; collection, analysis and dissemination of commercial statistics; promotion of foreign and domestic commerce; coastal and geodetic surveys; establishment of commodity weights, measures, and standards; supervision of the issuance of patents and the registration of trade-marks; maintenance of aids to air navigation; development of inland waterway transportation.

On Mar. 4, 1913, all labor activities were transferred out of the Department of Commerce and Labor, and it was renamed the Department of Commerce.

LABOR. The Secretary of Labor is charged with the duty of fostering, promoting and developing the welfare of the wage earners of the United States, improving their working conditions, and advancing their opportunities for profitable employment. He has the power to act as mediator and to appoint commissioners of conciliation in labor disputes whenever in his judgment the interests of industrial peace may require it to be done. He directs the collection and collation of statistics concerning conditions of labor; the promulgation and enforcement of certain maximum hour, minimum wage, child labor, safety and health stipulations in connection with Government supply contracts; the investigation of matters pertaining to children.

A Bureau of Labor was created in 1884 under the Department of the Interior, and it later became an independent department without executive rank. It was returned to bureau status in the Department of Commerce and Labor, but on Mar. 4, 1913, it became an independent executive department under its present name.

Earlier Departments

WAR. The War Department was created Aug. 7, 1789, to succeed a similar department established before the adoption of the Constitution. Its activities were placed under the Department of Defense on July 26, 1947.

NAVY. On April 7, 1789, the conduct of naval affairs was placed under the War Department, but on April 30, 1798, the Department of the Navy was created. Its activities were placed under the Department of Defense on July 26, 1947.

COMMERCE AND LABOR. The Department of Commerce and Labor was created Feb. 14, 1903, and divided Mar. 4, 1913, into two separate departments.

Presidential Succession

Under the Constitution, the Vice President is next in line for the Presidency; and, according to the Presidential Succession Act of 1886, the Vice President was to be followed by the Secretary of State, Secretary of the Treasury, Secretary of War, Attorney General, Postmaster General, Secretary of the Navy, and Secretary of the Interior in that order, provided they were constitutionally eligible. The Secretaries of Agriculture, Commerce and Labor were not included since their posts had not yet been created.

On July 18, 1947, President Truman signed a bill making the Speaker of the House next in line after the Vice President, to be followed by the Senate President pro tempore provided both are constitutionally eligible. They are followed by the Cabinet members in the same order as provided by the Act of 1886, with the Secretaries of Agriculture, Commerce and Labor added in that order after the Secretary of the Interior. Under the National Security Act of 1947, signed July 26, 1947, the new Secretary of Defense, replacing the Secretaries of War and the Navy, is third in the succession line in the Cabinet.

Presidents and Congresses Coincident With Terms

President	Congresses	President	Congresses	President	Congresses	President	Congresses
Washington	1–4	W. H. Harrison	27	Johnson	39–40	T. Roosevelt	57–60
Adams	5–6	Tyler	27–28	Grant	41–44	Taft	61–62
Jefferson	7–10	Polk	29–30	Hayes	45–46	Wilson	63–66
Madison	11–14	Taylor	31	Garfield	47	Harding	67
Monroe	15–18	Fillmore	31–32	Arthur	47–48	Coolidge	68–70
J. Q. Adams	19–20	Pierce	33–34	Cleveland	49–50, 53–54	Hoover	71–72
Jackson	21–24	Buchanan	35–36	B. Harrison	51–52	F. D. Roosevelt	73–79
Van Buren	25–26	Lincoln	37–39	McKinley	55–57	Truman	79–

U. S. Cabinet Members with Dates of Appointment

Although the Constitution made no provision for a President's advisory group, the heads of the three executive departments (State, Treasury and War) and the Attorney General were organized by Washington into such a group; and by about 1793, the name "Cabinet" was applied to it. With the exception of the Attorney General up to 1870 and the Postmaster General from 1829–72, Cabinet members have been heads of executive departments, although other government officials may be called to sit in whenever necessary.

A Cabinet member is appointed by the President, subject to the confirmation of the Senate; and as his term is not fixed, he may be replaced at any time by the President. At a change in Administration, it is customary for him to tender his resignation, but he remains in office until a successor is appointed.

The table of Cabinet members lists only those members who actually served after being duly commissioned. It does not include ad-interim appointments or cases where the appointee declined the office after appointment.

The dates shown are those of appointment. "Contd" indicates that the term continued from the previous Administration for a substantial amount of time. Those cases where the term continued for only a few days, until a new appointment could be made, are not indicated.

WASHINGTON

Secretary of State

Thomas Jefferson	1789
Edmund Randolph	1794
Timothy Pickering	1795

Secretary of the Treasury

Alexander Hamilton	1789
Oliver Wolcott, Jr.	1795

Secretary of War

Henry Knox	1789
Timothy Pickering	1795
James McHenry	1796

Attorney General

Edmund Randolph	1789
William Bradford	1794
Charles Lee	1795

J. ADAMS

Secretary of State

Timothy Pickering	Contd
John Marshall	1800

Secretary of the Treasury

Oliver Wolcott, Jr.	Contd
Samuel Dexter	1801

Secretary of War

James McHenry	Contd
Samuel Dexter	1800

Attorney General

Charles Lee	Contd

Secretary of the Navy

Benjamin Stoddert	1798

JEFFERSON

Secretary of State

James Madison	1801

Secretary of the Treasury

Samuel Dexter	Contd
Albert Gallatin	1801

Secretary of War

Henry Dearborn	1801

Attorney General

Levi Lincoln	1801
Robert Smith	1805
John Breckinridge	1805
Caesar A. Rodney	1807

Secretary of the Navy

Benjamin Stoddert	Contd
Robert Smith	1801

MADISON

Secretary of State

Robert Smith	1809
James Monroe	1811

Secretary of the Treasury

Albert Gallatin	Contd
George W. Campbell	1814
Alexander J. Dallas	1814
William H. Crawford	1816

Secretary of War

William Eustis	1809
John Armstrong	1813
James Monroe	1814
William H. Crawford	1815

Attorney General

Caesar A. Rodney	Contd
William Pinckney	1811
Richard Rush	1814

Secretary of the Navy

Paul Hamilton	1809
William Jones	1813
B. W. Crowninshield	1814

MONROE

Secretary of State

John Quincy Adams	1817

Secretary of the Treasury

William H. Crawford	Contd

Secretary of War

John C. Calhoun	1817

Attorney General

Richard Rush	Contd
William Wirt	1817

Secretary of the Navy

B. W. Crowninshield	Contd
Smith Thompson	1818
Samuel L. Southard	1823

J. Q. ADAMS

Secretary of State

Henry Clay	1825

Secretary of the Treasury

Richard Rush	1825

Secretary of War

James Barbour	1825
Peter B. Porter	1828

Attorney General

William Wirt	Contd

Secretary of the Navy

Samuel L. Southard	Contd

JACKSON

Secretary of State

Martin Van Buren	1829
Edward Livingston	1831
Louis McLane	1833
John Forsyth	1834

Secretary of the Treasury

Samuel D. Ingham	1829
Louis McLane	1831
William J. Duane	1833
Roger B. Taney	1833
Levi Woodbury	1834

Secretary of War

John H. Eaton	1829
Lewis Cass	1831

Attorney General

John M. Berrien	1829
Roger B. Taney	1831
Benjamin F. Butler	1833

Postmaster General[1]

William T. Barry	1829
Amos Kendall	1835

Secretary of the Navy

John Branch	1829
Levi Woodbury	1831
Mahlon Dickerson	1834

VAN BUREN

Secretary of State

John Forsyth	Contd

Secretary of the Treasury

Levi Woodbury	Contd

Secretary of War

Joel R. Poinsett	1837

Attorney General

Benjamin F. Butler	Contd
Felix Grundy	1838
Henry D. Gilpin	1840

Postmaster General

Amos Kendall	Contd
John M. Niles	1840

Secretary of the Navy

Mahlon Dickerson	Contd
James K. Paulding	1838

W. HARRISON

Secretary of State

Daniel Webster	1841

Secretary of the Treasury

Thomas Ewing	1841

Secretary of War

John Bell	1841

Attorney General

John J. Crittenden	1841

Postmaster General

Francis Granger	1841

Secretary of the Navy

George E. Badger	1841

TYLER

Secretary of State
Daniel Webster..... Contd
Abel P. Upshur..... 1843
John C. Calhoun..... 1844

Secretary of the Treasury
Thomas Ewing..... Contd
Walter Forward..... 1841
John C. Spencer..... 1843
George M. Bibb..... 1844

Secretary of War
John Bell..... Contd
John C. Spencer..... 1841
James M. Porter..... 1843
William Wilkins..... 1844

Attorney General
John J. Crittenden.... Contd
Hugh S. Legare..... 1841
John Nelson..... 1843

Postmaster General
Francis Granger..... Contd
Charles A. Wickliffe.... 1841

Secretary of the Navy
George E. Badger..... Contd
Abel P. Upshur..... 1841
David Henshaw..... 1843
Thomas W. Gilmer..... 1844
John Y. Mason..... 1844

POLK

Secretary of State
James Buchanan..... 1845

Secretary of the Treasury
Robert J. Walker..... 1845

Secretary of War
William L. Marcy..... 1845

Attorney General
John Y. Mason..... 1845
Nathan Clifford..... 1846
Isaac Toucey..... 1848

Postmaster General
Cave Johnson..... 1845

Secretary of the Navy
George Bancroft..... 1845
John Y. Mason..... 1846

TAYLOR

Secretary of State
John M. Clayton..... 1849

Secretary of the Treasury
William M. Meredith... 1849

Secretary of War
George W. Crawford.... 1849

Attorney General
Reverdy Johnson..... 1849

Postmaster General
Jacob Collamer..... 1849

Secretary of the Navy
William B. Preston..... 1849

Secretary of the Interior
Thomas Ewing..... 1849

FILLMORE

Secretary of State
Daniel Webster..... 1850
Edward Everett..... 1852

Secretary of the Treasury
Thomas Corwin..... 1850

Secretary of War
Charles M. Conrad..... 1850

Attorney General
John J. Crittenden..... 1850

Postmaster General
Nathan K. Hall..... 1850
Samuel D. Hubbard.... 1852

Secretary of the Navy
William A. Graham.... 1850
John P. Kennedy..... 1852

Secretary of the Interior
Thos. M. T. McKennon. 1850
Alex. H. H. Stuart..... 1850

PIERCE

Secretary of State
William L. Marcy..... 1853

Secretary of the Treasury
James Guthrie..... 1853

Secretary of War
Jefferson Davis..... 1853

Attorney General
Caleb Cushing..... 1853

Postmaster General
James Campbell..... 1853

Secretary of the Navy
James C. Dobbin..... 1853

Secretary of the Interior
Robert McClelland..... 1853

BUCHANAN

Secretary of State
Lewis Cass..... 1857
Jeremiah S. Black..... 1860

Secretary of the Treasury
Howell Cobb..... 1857
Philip F. Thomas..... 1860
John A. Dix..... 1861

Secretary of War
John B. Floyd..... 1857
Joseph Holt..... 1861

Attorney General
Jeremiah S. Black..... 1857
Edwin M. Stanton..... 1860

Postmaster General
Aaron V. Brown..... 1857
Joseph Holt..... 1859
Horatio King..... 1861

Secretary of the Navy
Isaac Toucey..... 1857

Secretary of the Interior
Jacob Thompson..... 1857

LINCOLN

Secretary of State
William H. Seward..... 1861

Secretary of the Treasury
Salmon P. Chase..... 1861
William P. Fessenden.. 1864
Hugh McCulloch..... 1865

Secretary of War
Simon Cameron..... 1861
Edwin M. Stanton..... 1862

Attorney General
Edward Bates..... 1861
James Speed..... 1864

Postmaster General
Montgomery Blair..... 1861
William Dennison..... 1864

Secretary of the Navy
Gideon Welles..... 1861

Secretary of the Interior
Caleb B. Smith..... 1861
John P. Usher..... 1863

JOHNSON

Secretary of State
William H. Seward.... Contd

Secretary of the Treasury
Hugh McCulloch..... Contd

Secretary of War
Edwin M. Stanton.... Contd
John M. Schofield..... 1868

Attorney General
James Speed..... Contd
Henry Stanbery..... 1866
William M. Evarts..... 1868

Postmaster General
William Dennison..... Contd
Alexander W. Randall.. 1866

Secretary of the Navy
Gideon Welles..... Contd

Secretary of the Interior
John P. Usher..... Contd
James Harlan..... 1865
Orville H. Browning.... 1866

GRANT

Secretary of State
Elihu B. Washburne.... 1869
Hamilton Fish..... 1869

Secretary of the Treasury
George S. Boutwell.... 1869
William A. Richardson.. 1873
Benjamin H. Bristow... 1874
Lot M. Morrill..... 1876

Secretary of War
John A. Rawlins..... 1869
William T. Sherman.... 1869
William W. Belknap.... 1869
Alphonso Taft..... 1876
James D. Cameron..... 1876

Attorney General
Ebenezer R. Hoar..... 1869
Amos T. Akerman..... 1870
George H. Williams.... 1871
Edwards Pierrepont.... 1875
Alphonso Taft..... 1876

Postmaster General
John A. J. Creswell.... 1869
James W. Marshall..... 1874
Marshall Jewell..... 1874
James N. Tyner..... 1876

Secretary of the Navy
Adolph E. Borie..... 1869
George M. Robeson.... 1869

Secretary of the Interior
Jacob D. Cox..... 1869
Columbus Delano..... 1870
Zachariah Chandler.... 1875

HAYES

Secretary of State
William M. Evarts..... 1877

Secretary of the Treasury
John Sherman..... 1877

Secretary of War
George W. McCrary.... 1877
Alexander Ramsey..... 1879

Attorney General
Charles Devens..... 1877

Postmaster General
David M. Key..... 1877
Horace Maynard..... 1880

Secretary of the Navy
Richard W. Thompson . 1877
Nathan Goff, Jr..... 1881

Secretary of the Interior
Carl Schurz..... 1877

GARFIELD

Secretary of State
James G. Blaine..... 1881

Secretary of the Treasury
William Windom..... 1881

Secretary of War
Robert T. Lincoln..... 1881

Attorney General
Wayne MacVeagh..... 1881

Postmaster General
Thomas L. James..... 1881

Secretary of the Navy
William H. Hunt..... 1881

Secretary of the Interior
Samuel J. Kirkwood... 1881

ARTHUR

Secretary of State
James G. Blaine..... Contd
F. T. Frelinghuysen.... 1881

Secretary of the Treasury
William Windom;.... Contd
Charles J. Folger..... 1881
Walter Q. Gresham..,. 1884
Hugh McCulloch..... 1884

Secretary of War
Robert T. Lincoln.....Contd

Attorney General
Wayne MacVeagh.....Contd
Benjamin H. Brewster. 1881

Postmaster General
Thomas L. James..... Contd
Timothy O. Howe..... 1881
Walter Q. Gresham.... 1883
Frank Hatton..... 1884

Secretary of the Navy
William H. Hunt..... Contd
William E. Chandler.... 1882

Secretary of the Interior
Samuel J. Kirkwood.. Contd
Henry M. Teller,..... 1882

CLEVELAND

Secretary of State
Thomas F. Bayard..... 1885

Secretary of the Treasury
Daniel Manning..... 1885
Charles S. Fairchild.... 1887

Secretary of War
William C. Endicott.... 1885

Attorney General
Augustus H. Garland... 1885

Postmaster General
William F. Vilas..... 1885
Don M. Dickinson..... 1888

Secretary of the Navy
William C. Whitney.... 1885

Secretary of the Interior
Lucius Q. C. Lamar.... 1885
William F. Vilas,..... 1888

Secretary of Agriculture
Norman J. Colman,.... 1889

HARRISON

Secretary of State
James G. Blaine..... 1889
John W. Foster..,.... 1892

Secretary of the Treasury
William Windom..... 1889
Charles Foster..... 1891

Secretary of War
Redfield Proctor..... 1889
Stephen B. Elkins..... 1891

Attorney General
William H. H. Miller.... 1889

Postmaster General
John Wanamaker,..... 1889

Secretary of the Navy
Benjamin F. Tracy,.... 1889

Secretary of the Interior
John W. Noble..... 1889

Secretary of Agriculture
Jeremiah M. Rusk..... 1889

CLEVELAND

Secretary of State
Walter Q. Gresham...,. 1893
Richard Olney..... 1895

Secretary of the Treasury
John G. Carlisle..... 1893

Secretary of War
Daniel S. Lamont..... 1893

Attorney General
Richard Olney..... 1893
Judson Harmon..... 1895

Postmaster General
Wilson S. Bissell..... 1893
William L. Wilson,..... 1895

Secretary of the Navy
Hilary A. Herbert..... 1893

Secretary of the Interior
Hoke Smith..... 1893
David R. Francis..... 1896

Secretary of Agriculture
Julius Sterling Morton. 1893

McKINLEY

Secretary of State
John Sherman..... 1897
William R. Day..... 1898
John Hay,..... 1898

Secretary of the Treasury
Lyman J. Gage..... 1897

Secretary of War
Russell A. Alger..... 1897
Elihu Root..... 1899

Attorney General
Joseph McKenna..... 1897
John W. Griggs..... 1898
Philander C. Knox,.... 1901

Postmaster General
James A. Gary..... 1897
Charles E. Smith..... 1898

Secretary of the Navy
John D. Long..... 1897

Secretary of the Interior
Cornelius N. Bliss.... 1897
Ethan A. Hitchcock.... 1898

Secretary of Agriculture
James Wilson..... 1897

T. ROOSEVELT

Secretary of State
John Hay..... Contd
Elihu Root..... 1905
Robert Bacon..... 1909

Secretary of the Treasury
Lyman J. Gage..... Contd
Leslie M. Shaw..... 1902
George B. Cortelyou... 1907

Secretary of War
Elihu Root..... Contd
William H. Taft..... 1904
Luke E. Wright..... 1908

Attorney General
Philander C. Knox,... Contd
William H. Moody,.... 1904
Charles J. Bonaparte... 1906

Postmaster General
Charles E. Smith..... Contd
Henry C. Payne..... 1902
Robert J. Wynne 1904
George B. Cortelyou.... 1905
George von L. Meyer... 1907

Secretary of the Navy
John D. Long..... Contd
William H. Moody..... 1902
Paul Morton..... 1904
Charles J. Bonaparte... 1905
Victor H. Metcalf..... 1906
Truman H. Newberry.. 1908

Secretary of the Interior
Ethan A. Hitchcock... Contd
James R. Garfield,..... 1907

Secretary of Agriculture
James Wilson..... Contd

Secretary of Commerce and Labor
George B. Cortelyou... 1903
Victor H. Metcalf..... 1904
Oscar S. Straus..... 1906

TAFT

Secretary of State
Philander C. Knox..... 1909

Secretary of the Treasury
Franklin MacVeagh.... 1909

Secretary of War
Jacob M. Dickinson.... 1909
Henry L. Stimson,..... 1911

Attorney General
George W. Wickersham. 1909

Postmaster General
Frank H. Hitchcock,... 1909

Secretary of the Navy
George von L. Meyer,.. 1909

Secretary of the Interior
Richard A. Ballinger,.. 1909
Walter L. Fisher..... 1911

Secretary of Agriculture
James Wilson..... Contd

Secretary of Commerce and Labor
Charles Nagel..... 1909

WILSON

Secretary of State
William J. Bryan..... 1913
Robert Lansing..... 1915
Bainbridge Colby..... 1920

Secretary of the Treasury
William G. McAdoo.... 1913
Carter Glass..... 1918
David F. Houston..... 1920

Secretary of War
Lindley M. Garrison.... 1913
Newton D. Baker..... 1916

Attorney General
James C. McReynolds.. 1913
Thomas W. Gregory.... 1914
A. Mitchell Palmer..... 1919

Postmaster General
Albert S. Burleson..... 1913

Secretary of the Navy
Josephus Daniels..... 1913

Secretary of the Interior
Franklin K. Lane..,.... 1913
John B. Payne,..... 1920

Secretary of Agriculture
David F. Houston..... 1913
Edwin T. Meredith..... 1920

Secretary of Commerce
William C. Redfield.... 1913
Joshua W. Alexander... 1919

Secretary of Labor
William B. Wilson..... 1913

HARDING

Secretary of State
Charles E. Hughes,.... 1921

Secretary of the Treasury
Andrew W. Mellon,.... 1921

Secretary of War
John W. Weeks..... 1921

Attorney General
Harry M. Daugherty.... 1921

Postmaster General
Will H. Hays..... 1921
Hubert Work..... 1922
Harry S. New..... 1923

Secretary of the Navy
Edwin Denby..... 1921

Secretary of the Interior
Albert B. Fall..... 1921
Hubert Work..... 1923

Secretary of Agriculture
Henry C. Wallace..... 1921

Secretary of Commerce
Herbert Hoover..... 1921

Secretary of Labor
James J. Davis..... 1921

COOLIDGE

Secretary of State
Charles E. Hughes.... Contd
Frank B. Kellogg..... 1925

Secretary of the Treasury
Andrew W. Mellon.... Contd

Secretary of War
John W. Weeks..... Contd
Dwight F. Davis..... 1925

Attorney General
Harry M. Daugherty... Contd
Harlan F. Stone..... 1924
John G. Sargent..... 1925

Postmaster General
Harry S. New..... Contd

Secretary of the Navy
Edwin Denby..... Contd
Curtis D. Wilbur..... 1924

Secretary of the Interior
Hubert Work..... Contd
Roy O. West..... 1928

Secretary of Agriculture
Henry C. Wallace..... Contd
Howard M. Gore..... 1924
William M. Jardine.... 1925

Secretary of Commerce
Herbert Hoover..... Contd
William F. Whiting..... 1928

Secretary of Labor
James J. Davis..... Contd

HOOVER

Secretary of State
Frank B. Kellogg..... Contd
Henry L. Stimson..... 1929

Secretary of the Treasury
Andrew W. Mellon.... Contd
Ogden L. Mills..... 1932

Secretary of War
James W. Good..... 1929
Patrick J. Hurley..... 1929

Attorney General
William D. Mitchell.... 1929

Postmaster General
Walter F. Brown..... 1929

Secretary of the Navy
Charles F. Adams..... 1929

Secretary of the Interior
Ray Lyman Wilbur..... 1929

Secretary of Agriculture
Arthur M. Hyde..... 1929

Secretary of Commerce
Robert P. Lamont..... 1929
Roy D. Chapin..... 1932

Secretary of Labor
James J. Davis..... Contd
William N. Doak..... 1930

F. ROOSEVELT

Secretary of State
Cordell Hull..... 1933
E. R. Stettinius, Jr..... 1944

Secretary of the Treasury
William H. Woodin..... 1933
Henry Morgenthau, Jr.. 1934

Secretary of War
George H. Dern..... 1933
Harry H. Woodring..... 1936
Henry L. Stimson..... 1940

Attorney General
Homer S. Cummings... 1933
Frank Murphy..... 1939
Robert H. Jackson..... 1940
Francis Biddle..... 1941

Postmaster General
James A. Farley..... 1933
Frank C. Walker..... 1940

Secretary of the Navy
Claude A. Swanson.... 1933
Charles Edison..... 1940
Frank Knox..... 1940
James Forrestal..... 1944

Secretary of the Interior
Harold L. Ickes..... 1933

Secretary of Agriculture
Henry A. Wallace..... 1933
Claude R. Wickard..... 1940

Secretary of Commerce
Daniel C. Roper..... 1933
Harry L. Hopkins..... 1938
Jesse H. Jones..... 1940
Henry A. Wallace..... 1945

Secretary of Labor
Frances Perkins..... 1933

TRUMAN

Secretary of State
E. R. Stettinius, Jr.... Contd
James F. Byrnes..... 1945
George C. Marshall.... 1947
Dean Acheson..... 1949

Secretary of the Treasury
Henry Morgenthau, Jr. Contd
Fred M. Vinson..... 1945
John W. Snyder..... 1946

Secretary of Defense
James Forrestal..... 1947
Louis A. Johnson..... 1949
George C. Marshall.... 1950
Robert A. Lovett..... 1951

Attorney General
Francis Biddle..... Contd
Tom C. Clark..... 1945
J. Howard McGrath.... 1949

Postmaster General
Frank C. Walker..... Contd
Robert E. Hannegan... 1945
Jesse M. Donaldson.... 1947

Secretary of the Interior
Harold L. Ickes..... Contd
Julius C. Krug..... 1946
Oscar L. Chapman..... 1949

Secretary of Agriculture
Claude R. Wickard.... Contd
Clinton P. Anderson... 1945
Charles F. Brannan.... 1948

Secretary of Commerce
Henry A. Wallace..... Contd
W. Averell Harriman... 1946
Charles Sawyer..... 1948

Secretary of Labor
Frances Perkins..... Contd
Lewis B. Schwellenbach 1945
Maurice J. Tobin..... 1948

Secretary of War[2]
Henry L. Stimson..... Contd
Robert P. Patterson.... 1945

Secretary of the Navy[2]
James Forrestal..... Contd

[1] The Postmaster General did not become a Cabinet member until 1829. Earlier Postmasters General were: Samuel Osgood (1789), Timothy Pickering (1791), Joseph Habersham (1795), Gideon Granger (1801), Return J. Meigs, Jr. (1814) and John McLean (1823). [2] On July 26, 1947, the Departments of War and of the Navy were incorporated into the Department of Defense.

The Confederate States of America, 1861–65

President—Jefferson Davis; born, Christian (now Todd) Co., Ky., June 3, 1808; died, Dec. 6, 1889. Vice President—Alexander H. Stephens.

CABINET*

Secretary of State
Robert Toombs..... 1861
Robert M. T. Hunter..... 1861
Judah P. Benjamin..... 1862

Secretary of Treasury
Christopher Memminger..... 1861
George A. Trenholm..... 1864

Secretary of War
Leroy P. Walker..... 1861
Judah P. Benjamin..... 1861
George W. Randolph..... 1862
James A. Seddon..... 1862
John C. Breckinridge..... 1865

Secretary of Navy
Stephen R. Mallory..... 1861

Postmaster General
Henry T. Ellett..... 1861
John H. Reagan..... 1861

Attorney General
Judah P. Benjamin..... 1861
Thomas Bragg..... 1861
Thomas N. Watts..... 1862
George Davis..... 1864

* Dates are those of appointment.

Diplomatic Personnel to and from the United States

Source: U. S. Department of State.

Country	U. S. representative to	Rank	Representative from	Rank
Afghanistan	George R. Merrell	Ambassador	Sardar Mohammad Naim	Ambassador
Argentina	Ellsworth Bunker	Ambassador	Hipólito J. Paz	Ambassador
Australia	Pete Jarman	Ambassador	P. C. Spender	Ambassador
Austria	Walter J. Donnelly	Minister	Dr. Ludwig Kleinwaechter	Minister
Belgium	Robert D. Murphy	Ambassador	Baron Silvercruys	Ambassador
Bolivia	(Vacant)	Ambassador	Don Ricardo Martínez Vargas	Ambassador
Brazil	Herschel V. Johnson	Ambassador	Mauricio Nabuco	Ambassador
Burma	David McK. Key	Ambassador	James Barrington	Ambassador
Cambodia	Donald R. Heath	Minister	Nong Kimny	Minister
Canada	Stanley Woodward	Ambassador	Hume Wrong	Ambassador
Ceylon	Joseph C. Satterthwaite	Ambassador	G. C. S. Corea	Ambassador
Chile	Claude G. Bowers	Ambassador	Félix Nieto del Río	Ambassador
China	(1)		Dr. V. K. Wellington Koo	Ambassador
Colombia	Capus M. Waynick	Ambassador	Dr. Don Cipriano Restrepo-Jaramillo	Ambassador
Costa Rica	Philip B. Fleming	Ambassador	Don J. Rafael Oreamuno	Ambassador
Cuba	Willard L. Beaulac	Ambassador	Dr. Louis Machado	Ambassador
Czechoslovakia	Ellis O. Briggs	Ambassador	Vladimar Prochazka	Ambassador
Denmark	Mrs. Eugenie Anderson	Ambassador	Henrik de Kauffmann	Ambassador
Dominican Republic	Ralph H. Ackerman	Ambassador	Dr. Luis Francisco Thomen	Ambassador
Ecuador	Paul C. Daniels	Ambassador	Luis Antonio Peñaherrera	Ambassador
Egypt	Jefferson Caffery	Ambassador	Mohamed Kamil Bey Abdul Rahim	Ambassador
El Salvador	George P. Shaw	Ambassador	Dr. Don Héctor David Castro	Ambassador
Estonia	(Legation at Tallinn closed)		Johannes Kalv	Act. Con. Gen.
Ethiopia	J. Rives Childs	Ambassador	Ras H. S. Imru	Ambassador
Finland	John M. Cabot	Minister	Johan A. Nykopp	Minister
France	David K. E. Bruce	Ambassador	Henri Bonnet	Ambassador
Germany	John J. McCloy	U. S. High Comm.	Heinrich L. Krekeler	Chargé d'Affaires
Great Britain	Walter S. Gifford	Ambassador	Sir Oliver Shewell Franks	Ambassador
Greece	John E. Peurifoy	Ambassador	Athanase G. Politis	Ambassador
Guatemala	Rudolf E. Schoenfeld	Ambassador	Carlos H. Aldana-Sandoval	Ambassador
Haiti	Howard K. Travers	Ambassador	Gustave Laraque	Ambassador
Honduras	John D. Erwin	Ambassador	Dr. Don Rafael Heliodora Valle	Ambassador
Hungary	Christian M. Ravndal	Minister	Imre Horváth	Minister
Iceland	Edward B. Lawson	Minister	Thor Thors	Minister
India	Chester Bowles	Ambassador	(Vacant)	Ambassador
Indonesia	H. Merle Cochran	Ambassador	Dr. Ali Sastroamidjojo	Ambassador
Iran	Loy W. Henderson	Ambassador	Nasrollah Entezam	Ambassador
Iraq	Edward S. Crocker, 2d	Ambassador	Abdullah Ibrahim Bakr	Ch. d'Af. ad int.
Ireland	Francis P. Matthews	Ambassador	John Joseph Hearne	Ambassador
Israel	Monnett B. Davis	Ambassador	Abba Eban	Ambassador
Italy	James Clement Dunn	Ambassador	Alberto Tarchiani	Ambassador
Jordan	Gerald A. Drew	Minister	Dr. Yusuf Haikal	Minister

Korea	John J. Muccio	Ambassador	Dr. You Chan Yang	Ambassador
Laos	Donald R. Heath	Minister	.....	.....
Latvia	(Legation at Riga closed)	.....	Jules Feldmans	Chargé d'Affaires
Lebanon	Lowell C. Pinkerton	Minister	Dr. Charles Malik	Minister
Liberia	Edward R. Dudley	Ambassador	Charles D. B. King	Ambassador
Libya	Andrew G. Lynch	Consul General	.....	.....
Liechtenstein	E. Porter Kuykendall	Consul General	.....	.....
Lithuania	(Legation at Kaunas closed)	.....	Povilas Zadeikis	Minister
Luxemburg	Mrs. Perle Mesta	Minister	Hugues Le Gallais	Minister
Mexico	William O'Dwyer	Ambassador	Don Rafael de la Colina	Ambassador
Morocco	Edwin A. Plitt	Dipl. Agent	.....	.....
Nepal	Loy W. Henderson	Ambassador	Gen. Shanker Shum Shere Jung Bahadur Rana	Ambassador
Netherlands	Selden Chapin	Ambassador	Dr. J. H. van Roijen	Ambassador
New Zealand	Robert M. Scotten	Ambassador	Sir Carl Berendsen	Ambassador
Nicaragua	Thomas E. Whelan	Ambassador	Dr. Don Guilelrmo Sevilla-Sacasa	Ambassador
Norway	Charles U. Bay	Ambassador	Wilhelm Munthe de Morgenstierne	Ambassador
Pakistan	Avra M. Warren	Ambassador	M. A. H. Ispahani	Ambassador
Panamá	John C. Wiley	Ambassador	Don Guillermo Endara	Minister Counselor
Paraguay	Howard H. Tewksbury	Ambassador	Dr. Don Luis Oscar Boettner	Ambassador
Peru	Harold H. Tittmann, Jr.	Ambassador	Don Fernando Berckemeyer	Ambassador
Philippines	Myron Melvin Cowen	Ambassador	Joaquin M. Elizalde	Ambassador
Poland	Joseph Flack	Ambassador	Jozef Winiewicz	Ambassador
Portugal	Lincoln MacVeagh	Ambassador	Luis Esteves Fernandes	Ambassador
Rumania	(Vacant)	Minister	Mihail Magheru	Minister
Saudi Arabia	Raymond A. Hare	Ambassador	Sheikh Asad Al-Faqih	Ambassador
South Africa, Union of	Waldemar J. Gallman	Ambassador	Gerhardas P. Jooste	Ambassador
Spain	Stanton Griffis	Ambasasdor	Don José Félix de Lequerica y Erquiza	Ambassador
Sweden	W. Walton Butterworth	Ambassador	Erik Boheman	Ambassador
Switzerland	Richard C. Patterson, Jr.	Minister	Charles Bruggmann	Minister
Syria	Cavendish W. Cannon	Minister	Faiz El-Khouri	Minister
Thailand	Edwin F. Stanton	Ambassador	Prince Wan Waithayakon	Ambassador
Turkey	George Wadsworth	Ambassador	Feridun C. Erkin	Ambassador
U.S.S.R.	Adm. Alan G. Kirk	Ambassador	Alexander S. Panyushkin	Ambassador
Uruguay	Edward L. Roddan	Ambassador	Dr. José A. Mora	Ambassador
Venezuela	Fletcher Warren	Ambassador	Dr. Antonio Martín Araujo	Ambassador
Viêt-Nam	Donald R. Heath	Minister	.....	.....
Yemen	Raymond A. Hare	Minister	Sayed Abdurrahman Ibn Abdussamed Abu-Taleb	Chargé d'Affaires
Yugoslavia	George V. Allen	Ambassador	Vladimir Popovic	Ambassador

[1] Embassy at Nanking closed Mar. 5, 1950. Karl Rankin is Chargé d'Affaires ad interim in Formosa.
NOTE: Diplomatic relations severed Feb. 24, 1950, between U. S. and Bulgaria.

Special Offices

JAPAN: Tokyo (Office of U. S. Political Adviser to Supreme Commander for Allied Powers)	William J. Sebald, U. S. political adviser.
SWITZERLAND: Geneva (Office of U. S. Delegation to Economic Commission for Europe)	Russell S. McClure, acting chief.
TRIESTE: Trieste (Office of U. S. Political Advisor to Commander, British-U. S. Zone, Free Territory of Trieste)	Leonard Unger, Foreign Service Reserve officer.

SPEAKERS OF THE HOUSE OF REPRESENTATIVES

Source: Congressional Directory.

Name and state	Congress	Dates served
F. A. C. Muhlenburg (Pa.)	1	1789–1791
Jonathan Trumbull (Conn.)	2	1791–1793
F. A. C. Muhlenburg (Pa.)	3	1793–1795
Jonathan Dayton (N. J.)[1]	4–5	1795–1799
Theodore Sedgwick (Mass.)	6	1799–1801
Nathaniel Macon (N. C.)	7–9	1801–1807
Joseph B. Varnum (Mass.)	10–11	1807–1811
Henry Clay (Ky.)[2]	12–13	1811–1814
Langdon Cheves (S. C.)	13	1814–1815
Henry Clay (Ky.)[3]	14–16	1815–1820
John W. Taylor (N. Y.)	16	1820–1821
Philip P. Barbour (Va.)	17	1821–1823
Henry Clay (Ky.)	18	1823–1825
John W. Taylor (N. Y.)	19	1825–1827
Andrew Stevenson (Va.)[4]	20–23	1827–1834
John Bell (Tenn.)	23	1834–1835
James K. Polk (Tenn.)	24–25	1835–1839
Robert M. T. Hunter (Va.)	26	1839–1841
John White (Ky.)	27	1841–1843
John W. Jones (Va.)	28	1843–1845
John W. Davis (Ind.)	29	1845–1847
Robert C. Winthrop (Mass.)	30	1847–1849
Howell Cobb (Ga.)	31	1849–1851
Linn Boyd (Ky.)	32–33	1851–1855
Nathaniel P. Banks (Mass.)	34	1855–1857
James L. Orr (S. C.)	35	1857–1859
William Pennington (N. J.)	36	1859–1861
Galusha A. Grow (Pa.)	37	1861–1863
Schuyler Colfax (Ind.)	38–40	1863–1869
Theodore M. Pomeroy (N. Y.)[5]	40	1869–1869
James G. Blaine (Maine)	41–43	1869–1875
Michael C. Kerr (Ind.)[6]	44	1875–1876
Samuel J. Randall (Pa.)	44–46	1876–1881
J. Warren Keifer (Ohio)	47	1881–1883
John G. Carlisle (Ky.)	48–50	1883–1889
Thomas B. Reed (Maine)	51	1889–1891
Charles F. Crisp (Ga.)	52–53	1891–1895
Thomas B. Reed (Maine)	54–55	1895–1899
David B. Henderson (Iowa)	56–57	1899–1903
Joseph G. Cannon (Ill.)	58–61	1903–1911
Champ Clark (Mo.)	62–65	1911–1919
Frederick H. Gillett (Mass.)	66–68	1919–1925
Nicholas Longworth (Ohio)	69–71	1925–1931
John N. Garner (Tex.)	72	1931–1933
Henry T. Rainey (Ill.)	73	1933–1935
Joseph W. Byrns (Tenn.)[7]	74	1935–1936
William B. Bankhead (Ala.)[8]	74–76	1936–1940
Sam Rayburn (Tex.)	76–79	1940–1947
Joseph W. Martin, Jr. (Mass.)	80	1947–1949
Sam Rayburn (Tex.)	81	1949–

[1] George Dent (Md.) was elected Speaker pro tempore for Apr. 20 and May 28, 1798. [2] Resigned during 2d session of 13th Congress. [3] Resigned between 1st and 2d sessions of 16th Congress. [4] Resigned during 1st session of 23d Congress. [5] Elected Speaker and served the day of adjournment. [6] Died between 1st and 2d sessions of 44th Congress. During 1st session, there were two Speakers pro tempore: Samuel S. Cox (N. Y.), appointed for Feb. 17, May 12 and June 19, 1876, and Milton Saylor (Ohio), appointed for June 4, 1876. [7] Died during 2d session of 74th Congress. [8] Died during 3d session of 76th Congress.

The White House

The White House, the official residence of the President, is located on Pennsylvania Avenue in Washington, D. C. The site covering about 16 acres was selected by President Washington and Pierre Charles L'Enfant, and the architect was James Hoban. The design of the mansion is said to have been suggested by the Duke of Leinster's Palace in Ireland. The cornerstone was laid Oct. 13, 1792, and the first residents were President and Mrs. John Adams in Nov., 1800. The building was fired by the British in 1814, and the sandstone exterior was painted white in 1815.

The rooms for public functions are on the first floor; on the second are the President's apartments. The most celebrated public room is the East Room, where formal receptions take place. Other public rooms are the Red Room, the Green Room, and the Blue Room. The State Dining Room is used for formal dinners.

The Executive Office, a three-story structure at the west end of the West Terrace, was added to the original building in 1902 to accommodate the President's office staff, and several additions have since been made. In 1942, a three-story building was erected on the East Terrace, and now serves as the White House main entrance. In 1948, a second-story balcony was added to the White House inside the Ionic pillars of the south portico.

The White House was closed Nov. 6, 1948, for social engagements and sightseers because of the deterioration of the building and the fear that it might collapse at any time. On Nov. 21, President Truman and his family moved into Blair House across the street.

It was decided that, instead of being torn down, the walls would be retained and strengthened and the interior rebuilt. When repairs are completed, probably in the spring of 1952, the building will have 77 rooms instead of 69.

Justices of the United States Supreme Court

Name	State	Term	Years	Born	Died
*John Jay	N. Y.	1789–1795	6	1745	1829
John Rutledge	S. C.	1789–1791	2	1739	1800
William Cushing	Mass.	1789–1810	21	1732	1810
James Wilson	Pa.	1789–1798	9	1742	1798
John Blair	Va.	1789–1796	7	1732	1800
James Iredell	N. C.	1790–1799	9	1751	1799
Thomas Johnson	Md.	1792–1793	½	1732	1819
William Paterson	N. J.	1793–1806	13	1745	1806
*John Rutledge†	S. C.	1795–1795	..	1739	1800
Samuel Chase	Md.	1796–1811	15	1741	1811
*Oliver Ellsworth	Conn.	1796–1800	4	1745	1807
Bushrod Washington	Va.	1798–1829	31	1762	1829
Alfred Moore	N. C.	1800–1804	4	1755	1810
*John Marshall	Va.	1801–1835	34	1755	1835
William Johnson	S. C.	1804–1834	30	1771	1834
Brock. Livingston	N. Y.	1806–1823	17	1757	1823
Thomas Todd	Ky.	1807–1826	19	1765	1826
Joseph Story	Mass.	1811–1845	34	1779	1845
Gabriel Duval	Md.	1811–1835	23	1752	1844
Smith Thompson	N. Y.	1823–1843	20	1768	1843
Robert Trimble	Ky.	1826–1828	2	1777	1828
John McLean	Ohio	1829–1861	32	1785	1861
Henry Baldwin	Pa.	1830–1844	14	1780	1844
James M. Wayne	Ga.	1835–1867	32	1790	1867
*Roger B. Taney	Md.	1836–1864	28	1777	1864
Philip P. Barbour	Va.	1836–1841	5	1783	1841
John Catron	Tenn.	1837–1865	28	1786	1865
John McKinley	Ala.	1837–1852	15	1780	1852
Peter V. Daniel	Va.	1841–1860	19	1784	1860
Samuel Nelson	N. Y.	1845–1872	27	1792	1873
Levi Woodbury	N. H.	1845–1851	6	1789	1851
Robert C. Grier	Pa.	1846–1870	23	1794	1870
Benjamin R. Curtis	Mass.	1851–1857	6	1809	1874
John A. Campbell	Ala.	1853–1861	8	1811	1889
Nathan Clifford	Maine	1858–1881	23	1803	1881
Noah H. Swayne	Ohio	1862–1881	18	1804	1884
Samuel F. Miller	Iowa	1862–1890	28	1816	1890
David Davis	Ill.	1862–1877	15	1815	1886
Stephen J. Field	Calif.	1863–1897	34	1816	1899
*Salmon P. Chase	Ohio	1864–1873	9	1808	1873
William Strong	Pa.	1870–1880	10	1808	1895
Joseph P. Bradley	N. J.	1870–1892	22	1813	1892
Ward Hunt	N. Y.	1872–1882	10	1810	1886
*Morrison R. Waite	Ohio	1874–1888	14	1816	1888
John M. Harlan	Ky.	1877–1911	34	1833	1911
William B. Woods	Ga.	1880–1887	7	1824	1887
Stanley Matthews	Ohio	1881–1889	8	1824	1889
Horace Gray	Mass.	1881–1902	21	1828	1902
Samuel Blatchford	N. Y.	1882–1893	11	1820	1893
Lucius Q. Lamar	Miss.	1888–1893	5	1825	1893
*Melville W. Fuller	Ill.	1888–1910	22	1833	1910
David J. Brewer	Kans.	1889–1910	21	1837	1910
Henry B. Brown	Mich.	1890–1906	16	1836	1913
George Shiras, Jr.	Pa.	1892–1903	11	1832	1924
Howell E. Jackson	Tenn.	1893–1895	2	1832	1895
Edward D. White	La.	1894–1910	16	1845	1921
Rufus W. Peckham	N. Y.	1895–1909	14	1838	1909
Joseph McKenna	Calif.	1898–1925	27	1843	1926
Oliver W. Holmes	Mass.	1902–1932	30	1841	1935
William R. Day	Ohio	1903–1922	19	1849	1923
William H. Moody	Mass.	1906–1910	4	1853	1917
Horace H. Lurton	Tenn.	1909–1914	5	1844	1914
*Edward D. White	La.	1910–1921	11	1845	1921
Charles E. Hughes	N. Y.	1910–1916	6	1862	1948
Willis Van Devanter	Wyo.	1910–1937	26	1859	1941
Joseph R. Lamar	Ga.	1910–1916	6	1857	1916
Mahlon Pitney	N. J.	1912–1923	11	1858	1924
Jas. C. McReynolds	Tenn.	1914–1941	26	1862	1946
Louis D. Brandeis	Mass.	1916–1939	23	1856	1941
John H. Clarke	Ohio	1916–1922	6	1857	1945
*William H. Taft	Conn.	1921–1930	9	1857	1930
George Sutherland	Utah	1922–1938	16	1862	1942
Pierce Butler	Minn.	1922–1939	17	1866	1939
Edward T. Sanford	Tenn.	1923–1930	7	1865	1930
Harlan F. Stone	N. Y.	1925–1941	16	1872	1946
*Charles E. Hughes	N. Y.	1930–1941	11	1862	1948
Owen J. Roberts	Pa.	1930–1945	15	1875	
Benjamin N. Cardozo	N. Y.	1932–1938	6	1870	1938
Hugo L. Black	Ala.	1937		1886	
Stanley F. Reed	Ky.	1938		1884	
Felix Frankfurter	Mass.	1939		1882	
William O. Douglas	Conn.	1939		1898	
Frank Murphy	Mich.	1940–1949	9	1890	1949
*Harlan F. Stone	N. Y.	1941–1946	5	1872	1946
James F. Byrnes	S. C.	1941–1942	1	1879	
Robert H. Jackson	N. Y.	1941		1892	
Wiley B. Rutledge	Iowa	1943–1949	6	1894	1949
Harold H. Burton	Ohio	1945		1888	
*Fred M. Vinson	Ky.	1946		1890	
Tom C. Clark	Tex.	1949		1899	
Sherman Minton	Ind.	1949		1890	

* Chief Justices. † Appointed and served one term, but not confirmed by Senate.

Federal Impeachments

Source: Congressional Directory.

The Senate has sat as a court of impeachment in the following cases:

WILLIAM BLOUNT, Senator from Tennessee; charges dismissed for want of jurisdiction, January 14, 1799.

JOHN PICKERING, Judge of the U. S. District Court for New Hampshire; removed from office March 12, 1804.

SAMUEL CHASE, Associate Justice of the Supreme Court; acquitted March 1, 1805.

JAMES H. PECK, Judge of the U. S. District Court for Missouri; acquitted Jan. 31, 1831.

WEST H. HUMPHREYS, Judge of the United States District Court for the middle, eastern, and western districts of Tennessee; removed from office June 26, 1862.

ANDREW JOHNSON, President of the United States; acquitted May 26, 1868.

WILLIAM W. BELKNAP, Secretary of War; acquitted Aug. 1, 1876.

CHARLES SWAYNE, Judge of the United States District Court for the northern district of Florida; acquitted Feb. 27, 1905.

ROBERT W. ARCHBALD, Associate Judge, United States Commerce Court; removed from office January 13, 1913.

GEORGE W. ENGLISH, Judge of the U. S. District Court for the eastern district of Illinois; resigned office November 4, 1926; impeachment proceedings dismissed.

HAROLD LOUDERBACK, Judge of the U. S. District Court for the northern district of California; acquitted May 24, 1933.

HALSTED L. RITTER, Judge of the U. S. District Court for the southern district of Florida; removed April 17, 1936.

Principal Bills and Treaties Since 1900

PARTY ABBREVIATIONS

Dem.—Democratic
Rep.—Republican
A.L.—American Labor
F.L.—Farmer-Labor
Ind.—Independent
Prog.—Progressive
Proh.—Prohibition
Soc.—Socialist

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Hay-Pauncefote Treaty. England agreed the U. S. can build and control an Isthmian canal open to all nations on equal terms (ratified Dec. 16, 1901).		No vote required		72	6	Nov. 18, 1901
Newlands Act. Authorized irrigation projects in 16 western states.		146	55	No roll-call vote		June 17, 1902
Spooner Bill. Authorized purchase of New Panama Canal Company's rights.		252	8	67	6	June 28, 1902
Elkins Act. Forbade railroads from deviating from published rates; punished givers and receivers of rebates.		241	6	No record vote		Feb. 19, 1903
Hay-Bunau-Varilla Treaty. Granted the U. S. a ten-mile strip in Panama in perpetuity for $10,000,000 in gold and an annuity of $250,000.	Dem. Rep.	No vote required		9 41	15 1	Mar. 19, 1903
Hepburn Rate Bill. Gave the ICC control over express companies and pipe lines; allowed them to reduce rates upon complaint of shipper; outlawed midnight rates; forbade free passes; required uniform bookkeeping system.		216	4	71	3	June 29, 1906
Pure Food and Drug Act. Made shipments in interstate commerce of adulterated foods and drugs illegal.		240	17	63	4	June 30, 1906
Payne-Aldrich Tariff. Protective, averaging 36.38 per cent; lowered rates on coal, lumber, etc.; free list included wood pulp, oil, etc.		195	183	47	31	Aug. 5, 1909
Immigration Act. Barred paupers, anarchists, criminals, and diseased persons.						Mar. 26, 1910
Mann-Elkins Act. Gave the ICC jurisdiction over telephone and telegraph companies; right to alter railroad rates on their own initiative.		200	126	50	12	June 18, 1910
Admission of New Mexico.		No roll-call vote		53	8	Jan. 6, 1912
Admission of Arizona.		No roll-call vote		53	8	Feb. 14, 1912
16th Amendment. Legalized the income tax.		317	14	77	0	Feb. 25, 1913
Webb-Kenyon Interstate Liquor Shipment Act. Forbade transportation of liquor from wet to dry states.		240	65	No roll-call vote		Vetoed, Feb. 23, 1913
		(Reconsideration vote)				
		244	95	62	21	Mar. 1, 1913
17th Amendment. Provided for popular election of Senators.		237	39	64	24	May 31, 1913
Underwood-Simmons Tariff. Averaged 26.67 per cent with 958 reductions, 86 increases and 307 unchanged items.		254	103	36	17	Oct. 3, 1913
Glass-Owen Bill. Established a Federal Reserve system.		298	60	43	25	Dec. 23, 1913
Federal Trade Commission. Established to enforce antitrust laws.		No roll-call vote		53	16	Sept. 26, 1914
Clayton Antitrust Act. Prohibited monopolistic price discrimination, restrictive sales or leases, intercorporate stock holding, interlocking directorates of competing companies capitalized at $1,000,000 or more. Exempted labor from antitrust laws and declared peaceful picketing legal.		244	54	35	24	Oct. 15, 1914
Federal Farm Loan Act. Created system of land banks to lend money to farmers on their land and permanent improvements.		No roll-call vote		58	5	July 17, 1916
Keating-Owen Act. Forbade shipping in interstate commerce of goods produced by children. (Declared unconstitutional in 1918.)		337	46	52	12	Sept. 1, 1916

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Adamson Act. Limited working hours of railroad employees to 8 per day on interstate railroads.		259	36	43	28	Sept. 3–5, 1916*
Burnett Immigration Bill. Required literacy test for immigrants.		308	87	64	7	Vetoed, Jan. 29, 1917
			(Reconsideration vote)			
		285	106	62	19	Feb. 5, 1917
Armed Neutrality Act. Allowed American vessels to be armed in war zones.				Filibustered		Defeated, Mar. 4, 1917
Declaration of War. Against Germany (World War I).		373	50	82	6	Apr. 6, 1917
Volstead Act. Prohibited manufacture, transportation and sale of beverages containing more than .5 per cent alcohol.		321	70	Voice vote approval		Vetoed, Oct. 27, 1919
			(Reconsideration vote)			
	Dem.	...	...	27	11	Oct. 28, 1919
	Rep.	...	...	38	9	
Treaty of Versailles.	Dem.	No vote required		4	42	Rejected, Nov. 19, 1919
	Rep.			35	13	
18th Amendment. Forbade manufacture, sale and transportation of intoxicating liquors.	Dem.	141	64	36	12	Jan. 16, 1920
	Rep.	137	62	29	8	
	Ind.	2	...	..	..	
	Proh.	1	...	..	..	
	Prog.	1	1	..	..	
	Soc.	...	1	..	..	
Transportation Act. Reorganized ICC with 11 members and increased powers; authorized loans to railroads; created Railroad Labor Board; provided for consolidation of railroads.		250	150	47	17	Feb. 29, 1920
Treaty of Versailles.	Dem.	No vote required		21	23	Rejected, Mar. 19, 1920
	Rep.			28	12	
Federal Water Power Act. Created federal power commission to license citizens who use navigable streams for power; licenses limited to 50 years.				52	18	June 18, 1920
19th Amendment. Gave women the right to vote.	Dem.	102	70	20	17	Aug. 26, 1920
	Rep.	200	19	36	8	
	Ind.	1	...	..	..	
	Prog.	1	...	..	..	
Emergency Quota Act. Limited annual number of immigrants from any country to 3 per cent of that nationality living in U. S. in 1910. (Renewed in 1922 for two more years.)		No record vote		78	1	May 19, 1921
Emergency Tariff Act. Raised rates on agricultural articles, wool, sugar, chemicals, etc.	Dem.	...	...	7	27	May 27, 1921
	Rep.	...	...	56	1	
Capper-Volstead Act. Exempted farm co-operatives from antitrust laws.		284	49	58	1	Feb. 18, 1922
Washington Conference Treaties:						
Four Power Pacific Peace Pact. Related to Pacific Island possessions of Britain, France, U. S., and Japan.	Dem.	No vote required		12	23	Mar. 24, 1922
	Rep.			55	4	
Five Power Limitation on Naval Armaments Treaty. Powers were U. S., Britain, France, Italy and Japan.		No vote required		74	1	Mar. 29, 1922
Nine Power Treaty. Guaranteed the territorial integrity of China.		No vote required		65	0	Mar. 30, 1922
Fordney-McCumber Tariff. Highly protective, averaging 33.22 per cent; gave tariff commission power to suggest that President increase or decrease rates not more than 50 per cent of original rate on any item to meet competition.	Dem.	...	...	3	24	Sept. 21, 1922
	Rep.	...	...	45	1	
World Court Protocol.	Dem.	No vote required		23	3	Defeated, Mar. 3, 1923
	Rep.			1	46	

* As Sept. 3 was a Sunday, the validity of the President's signature was questioned. Therefore, the bill was re-signed on the following Tuesday.

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Federal Intermediate Credit Act. Lent money to farmers to extent of 75 per cent of value of harvested crops and livestocks.		277	3	No record vote		Mar. 4, 1923
Bonus Bill. Provided 20-year endowment policies for veterans.	Dem.	177	20	32	9	Vetoed,
	Rep.	175	34	33	8	May 15,
	F.L.	1	...	2	..	1924
	Soc.	1	...	..	..	
	Ind.	1	...	..	..	
			(Reconsideration vote)			
	Dem.	145	21	27	9	May 19,
	Rep.	166	57	30	17	1924
	F.L.	...	...	2	..	
	Soc.	1	...	..	..	
	Ind.	1	...	..	..	
Immigration Quota Law. Limited annual number of immigrants to 2 per cent of each country's residents in U. S. in 1890. After 1927, the number was to be limited annually to 150,000. Did not apply to nations of Western Hemisphere.		308	58	69	9	May 26, 1924
World Court Membership.	Dem.	No vote required		36	2	Jan. 27,
	Rep.			40	14	1926
	F.L.			..	1	
McNary-Haugen Bill. Lent money to farm co-operatives and paid farmers equalizing price on their products.	Dem.	97	70	22	17	Vetoed,
	Rep.	113	108	24	22	Feb. 25,
	F.L.	2	...	1	..	1927; no
	Soc.	1	...	..	..	recon-
	Ind.	1	...	..	..	sidera-
						tion vote
McNary-Haugen Bill. (Re-passage of bill the following year.)	Dem.	100	53	28	9	Vetoed,
	Rep.	101	68	24	14	May 23,
	F.L.	2	...	1	..	1928
	Soc.	1	...	..	..	
			(Reconsideration vote)			
	Dem.	No vote required		29	12	Defeated,
	Rep.			20	19	May 25,
	F.L.			1	..	1928
Norris-Morin Resolution. Would have completed construction of Muscle Shoals for nitrates and power.		251	165	48	25	Pocket veto, June 4, 1928
Kellogg-Briand Pact. Outlawed wars and prescribed arbitration of international disputes.		No vote required		85	1	Jan. 15, 1929
Agricultural Marketing Act. Created federal farm board with power to lend money to farm co-operatives and to create stabilization corporations to buy farm surplus and to store and sell abroad to maintain prices.	Dem.	121	32	33	2	June 15,
	Rep.	245	2	21	32	1929
	F.L.	1	...	..	..	
Hawley-Smoot Tariff. Very high protective tariff, averaging 40.08 per cent but giving President power to initiate reduction or increase in rates.	Dem.	14	132	5	30	June 17,
	Rep.	208	20	39	11	1930
	F.L.		1	..	1	
Bonus Loan Bill. Increased amount veterans might borrow and reduced interest rate.	Dem.	150	...	37	..	Vetoed,
	Rep.	212	39	34	12	Feb. 26,
	F.L.	1	...	1	..	1931
			(Reconsideration vote)			
	Dem.	148	...	39	1	Feb. 27,
	Rep.	179	79	36	16	1931
	F.L.	1	...	1	..	
Norris Resolution. Would have completed Muscle Shoals.	Dem.	128	3	35	2	Vetoed,
	Rep.	87	150	20	26	Mar. 3,
	F.L.	1	...	..	..	1931; no
						recon-
						sidera-
						tion vote
War Debt Moratorium. Provided for moratorium on payment of interest and war debt installments by nations indebted to U. S.	Dem.	120	95	33	6	Dec. 23,
	Rep.	196	5	36	6	1931
	F.L.	1	...	..	..	
Reconstruction Finance Corporation. Established with a working fund of $500,000,000 and power to borrow more to release frozen assets in banks and mortgage companies and to help bankrupt railroads.	Dem.	153	43	29	5	Jan. 22,
	Rep.	182	12	34	3	1932

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Norris-LaGuardia Act. Limited granting of injunctions against labor; required open testimony in open court and outlawed yellow dog contracts.		363	13	75	5	Mar. 23, 1932
Hawes-Cutting Bill. Granted Philippine independence but was rejected by the Philippine legislature because of its economic and immigration provisions.		No record vote		No record vote (Reconsideration vote)		Vetoed, Jan. 13, 1933
	Dem.	191	1	45	1	
	Rep.	82	93	20	25	
	F.L.	1	...	1	..	
20th Amendment. Changed date of meeting of Congress to Jan. 3 and date of Presidential inauguration to Jan. 20; authorized procedure for selection of filling vacancies in Presidency.		335	56	73	3	Jan. 23, 1933
3.2 Percent Liquor Law. Legalized manufacture and sale of 3.2 wines and beers.	Dem.	No record vote		33	19	Mar. 22, 1933
	Rep.			10	17	
Civilian Conservation Corps. Created to relieve unemployment and to work at reforestation, road building and flood control.		No roll-call vote		No roll-call vote		Mar. 31, 1933
Agricultural Adjustment Act. Created the AAA, which was authorized to limit acreage on specified crops at farmers' option and to pay benefits to farmers; money for this purpose to be raised by a process tax, which was declared unconstitutional Jan. 16, 1936.		315	98	52	31	May 12, 1933
Tennessee Valley Authority. Established to develop and sell electric power, to serve as yardstick for electricity rates, to develop rural electrification, to establish flood control, and to produce fertilizer.	Dem.	284	2	48	3	May 18, 1933
	Rep.	17	89	14	17	
	F.L.	5	...	1	..	
Federal Securities Act. Required that all stock and bond issues be registered and approved.		No roll-call vote		No roll-call vote		May 27, 1933
Home Owners Refinancing Act. Established the HOLC, which took over mortgages in exchange for bonds in order to save home owners from losing homes.		383	4	No record vote		June 13, 1933
Glass-Steagall Banking Act. Created Federal Deposit Insurance Corporation to insure deposits up to $5000; required that private banks be either investment or deposit banks, but not both.		No record vote		No roll-call vote		June 16, 1933
National Industrial Recovery Act. Created NRA; authorized establishment of trade associations; suspended antitrust laws; authorized drawing-up of codes of Fair Competition to be accepted by President; guaranteed collective bargaining and required employers to accept approved maximum and minimum wage provisions. (Declared unconstitutional in 1935.)	Dem.	266	25	46	4	June 16, 1933
	Rep.	53	50	10	20	
	F.L.	4	...	1	..	
21st Amendment. Repealed prohibition.	Dem.	179	32	33	9	Dec. 5, 1933
	Rep.	109	89	29	14	
	F.L.	1	...	1	..	
Gold Reserve Act. Gave President power to devalue gold and to impound for treasury all gold in Federal System and to establish Exchange Stabilization Fund.	Dem.	237	2	55	1	Jan. 30, 1934
	Rep.	68	38	10	22	
	F.L.	5	...	1	..	
Farm Mortgage Refinancing Act. Created Federal Farm Mortgage Corporation to assist farmers in payment of mortgages on easier interest terms.		No record vote		No record vote		Jan. 31, 1934
Tydings-McDuffie Act. Gave the Philippine Islands independence.	Dem.	No roll-call vote		51	..	Mar. 24, 1934
	Rep.			16	8	
	F.L.			1	..	
Johnson Debt Default Bill. Forbade sale in this country of securities of defaulting countries.		No record vote		No record vote		Apr. 13, 1934
Home Owners Loan Act. Supplemented Home Owners Refinancing Act.		337	1	35	34	Apr. 28, 1934
Securities and Exchange Act. Established Securities and Exchange Commission; required licensing of stock exchanges; made certain speculative practices illegal; gave Federal Reserve Board power to fix margins; required full financial statements from registered companies.	Dem.	254	11	47	1	June 6, 1934
	Rep.	22	73	15	12	
	F.L.	4	...	..	..	

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Trade Agreements Act. Authorized President to reduce tariffs by as much as 50 per cent of prevailing rates for those countries which granted the U. S. most favored nation treatment without the need for Senatorial ratification for three years.	Dem.	No record vote		51	5	June 12, 1934
	Rep.			5	28	
	F.L.			1	..	
National Housing Act. Created Federal Housing Administration to administer funds for modernizing homes and for lending for new construction.		176	19	No record vote		June 28, 1934
Federal Farm Bankruptcy Act (Frazier-Lemke Act). Declared moratorium on farm mortgage foreclosures. (Declared unconstitutional in May, 1935.)		No record vote		60	16	June 28, 1934
World Court Ratification.	Dem.	No vote required		43	20	Defeated, Jan. 29, 1935
	Rep.			9	14	
	F.L.			..	1	
	Prog.			..	1	
Soldiers' Bonus Bill. Would have paid off veterans compensation certificates.		318	90	55	33	Vetoed, May 22, 1935
			(Reconsideration vote)			
		322	98	40	54	Defeated, May 23, 1935
National Labor Relations Act (Wagner-Connery Act). Created the NLRB with power to determine appropriate collective bargaining unit subject to elections they supervised at request of the workers; to certify the duly chosen trade union and to take testimony about unfair employer practices and issue cease and desist orders.	Dem.	No record vote		49	4	July 5, 1935
	Rep.			12	8	
	F.L.			1	..	
	Prog.			1	..	
Social Security Act. Created social security board to administer old age benefits based on earnings before the age of 65; unemployment administered under state laws and grants to states to aid the needy aged, blind, orphans, widows, etc.		372	33	76	6	Aug. 14, 1935
Glass-Steagall Banking Act. Increased power of Federal Reserve Board of Governors over open market and credit transactions.		No record vote		No record vote		Aug. 23, 1935
Public Utilities Act (Wheeler-Rayburn Act). Required all public utilities to register with the SEC and limited utility holding corporations to first degree unless necessity required greater complexity.	Dem.	203	59	No record vote		Aug. 26, 1935
	Rep.	7	83			
	F.L.	3	...			
	Prog.	6	...			
Farm Mortgage Moratorium Act. Allowed three-year moratorium on foreclosures with court permission upon payment of reasonable rental.		No record vote		No record vote		Aug. 29, 1935
Soldiers' Bonus Bill. Made 9-year 3-per cent bonds redeemable on demand.	Dem.	265	29	56	9	Vetoed.
	Rep.	72	30	15	7	Jan. 24,
	F.L.	3	...	2	..	1936
	Prog.	6	...	1	..	
			(Reconsideration vote)			
	Dem.	248	32	57	12	Jan. 27,
	Rep.	66	29	16	7	1936
	F.L.	3	...	2	..	
	Prog.	7	...	1	..	
Soil Conservation and Domestic Allotment Act. Granted payments to farmers who let their land lie fallow or planted cover crops.	Dem.	246	25	49	9	Mar. 2,
	Rep.	20	64	5	11	1936
	F.L.	1	1	1	..	
	Prog.	...	7	1	..	
Reciprocal Trade Agreement Act. Extended to June, 1940, period during which President is authorized to negotiate foreign trade under Trade Agreements Act of 1934.		284	0	58	24	Mar. 1, 1937
Neutrality Act. Forbade export of arms and ammunition to belligerents, the sale in this country of belligerents' securities, the use of American ships for carrying munitions; required belligerents to pay upon purchase and carry all purchases in their own ships (cash and carry clause).		377	12	41	15	May 1, 1937

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Judiciary Act. Allowed voluntary retirement of Supreme Court justices and other federal court judges on full pension at age of 70.		No roll-call vote		Unanimous, no roll-call vote		Aug. 25, 1937
National Housing Act. Established the U. S. Housing Authority to administer loans to local communities and states for rural and urban construction. (Amended in 1938.)		275	86	64	16	Sept. 2, 1937
National Housing Act Amendment.	Dem.	No record vote		41	25	Feb. 4,
	Rep.			..	13	1938
	F.L.			..	1	
	Prog.			..	1	
	Ind.			1	..	
Agricultural Adjustment Act. Continued soil conservation program; provided parity payments and commodity loans to farmers; established crop insurance corporations and ever-normal granary plan.	Dem.	243	54	53	17	Feb. 16,
	Rep.	14	74	2	11	1933
	F.L.	5	...	..	2	
	Prog.	1	7	..	1	
	Ind.	...	...	1	..	
Wage and Hours Act. Provided minimum wage of 25 cents to rise to 40 cents after 6 years; limited hours from 44 per week the first year to 40 after the third year; goods produced by "oppressive child labor" could not be shipped in interstate commerce.	Dem.	247	41	No record vote		June 25,
	Rep.	31	48			1938
	F.L.	5	...			
	Prog.	7	...			
Reciprocal Trade Agreement Act. Extended Trade Agreements Act of 1937 three more years.	Dem.	212	20	41	15	Apr. 12,
	Rep.	5	146	..	20	1940
	F.L.	...	1	..	2	
	Prog.	...	1	..	..	
	Ind.	...	...	1	..	
	A.L.	1	...	..	..	
Selective Service Act. Established system for compulsory service in armed forces. (Extended in 1941.)	Dem.	211	33	50	17	Sept. 16,
	Rep.	52	112	8	10	1940
	F.L.	...	1	..	2	
	Prog.	...	2	..	1	
	Ind.	...	...	..	1	
	A.L.	...	1	..	..	
Lend-Lease. Provided system whereby U. S. lent goods and munitions to democratic nations in return for services and goods.		260	165	60	31	Mar. 11, 1941
Selective Service Act Extension. Extended period of service to not more than 30 months in time of peace and eliminated 900,000-man limit of Army.	Dem.	182	65	38	16	Aug. 18,
	Rep.	21	133	7	13	1941
	Prog.	...	3	..	1	
	A.L.	...	1	..	..	
Declarations of World War II:						
Against Japan.	Dem.	235	...	56	..	Dec. 8,
	Rep.	149	1	24	..	1941
	Prog.	3	...	1	..	
	Ind.	...	...	1	..	
	A.L.	1	...	..	..	
Against Germany.		393	0	88	0	Dec. 11, 1941
U. N. Charter Ratification.	Dem.	No vote required		53	..	July 28,
	Rep.			35	2	1945
	Prog.			1	..	
Case Bill. Would have set up mediation board, established enforceable 30-day cooling-off periods in labor disputes, outlawed boycotts and sympathy strikes, and authorized court injunctions.	Dem.	97	91	33	13	Vetoed,
	Rep.	133	13	28	6	June 11,
	Prog.	...	1	..	1	1946
	A.L.	...	1	..	..	
			(Reconsideration vote)			
	Dem.	96	118	No vote required		Defeated,
	Rep.	159	15			June 11,
	Prog.	...	1			1946
	A.L.	...	1			
British Loan Act. Established $3,750,000,000 credit to Britain, including $650,000,000 in lend-lease.	Dem.	157	32	29	15	July 15
	Rep.	61	122	17	18	1946
	Prog.	...	1	..	1	
	A.L.	1	...	..	..	

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Atomic Energy Commission. Created five-man controlled commission without military representation but with military liaison; permitted Army and Navy to make atomic weapons; forbade distribution of fissionable materials or atomic energy information.		No record vote		No record vote		Aug. 1, 1946
Greek-Turkey Aid Bill. Authorized $400,000,000 to furnish aid to Greece and Turkey upon application, subject to withdrawal upon request of countries, of the U. N. Security Council or General Assembly, or of President if improperly used or unnecessary.	Dem.	160	13	32	7	May 22,
	Rep.	127	93	35	16	1947
	A.L.	...	1	..	..	
Treaty Ratifications:	Dem.	No vote required		37	3	June 14,
With Italy.	Rep.			42	7	1947
With Rumania.		No vote required		Voice vote approval		June 14, 1947
With Bulgaria.		No vote required		Voice vote approval		June 14, 1947
With Hungary.		No vote required		Voice vote approval		June 14, 1947
Income Tax Reduction Bill. Would have reduced income tax rates on a sliding scale, ranging from 10.5 to 30 per cent on July 1, 1947.	Dem.	37	97	6	26	Vetoed,
	Rep.	183	1	42	2	June 16,
	A.L.	...	1	..	..	1947
		(Reconsideration vote)				
	Dem.	35	134	No vote required		Defeated,
	Rep.	233	2			June 17,
	A.L.	...	1			1947
Taft-Hartley Bill (Labor-Management Relations Act, 1947). Prohibits closed shops but allows union shops by secret vote of majority of employes; makes unions subject to damage suits for unfair labor practices, such as boycotts or jurisdictional strikes; requires unions to file financial reports; requires union leaders to file statements that they are not Communistic.	Dem.	103	66	17	15	Vetoed,
	Rep.	217	12	37	2	June 20,
	A.L.	...	1	..	..	1947
		(Reconsideration vote)				
	Dem.	106	71	20	22	June 23,
	Rep.	225	11	48	3	1947
	A.L.	...	1	..	..	
Rent Control Bill. Continued federal rent control to Feb. 29, 1948, but permitted 15 per cent increase if mutually agreed to by tenant and landlord for lease running to Dec. 31, 1948 (leases once signed take property out of rent control); decontrolled non-residential buildings.		163	73	Voice vote approval		June 30, 1947
Presidential Succession Act. Made Speaker of House and President of Senate pro tempore next in line after Vice President.		365	11	50	35	July 18, 1947
Income Tax Reduction Bill (Second Version). Same provisions as first bill but with effective date changed to Jan. 1, 1948.	Dem.	69	109	12	30	Vetoed,
	Rep.	233	2	48	2	July 18,
	A.L.	...	1	..	..	1947
		(Reconsideration vote)				
	Dem.	63	105	10	33	Defeated,
	Rep.	236	2	47	3	July 18,
	A.L.	...	1	..	..	1947
National Security Act of 1947. Reorganized and co-ordinated armed forces under National Military Establishment headed by Secretary of Defense (of Cabinet rank) and including Secretaries of the Army, the Navy and the Air Force.		Voice vote approval		Voice vote approval		July 26, 1947
Rent Control Bill. Extended controls through Mar. 31, 1949; provided Emergency Court of Appeals to decide on decontrols or increases recommended by local boards but rejected by Federal Housing Expediter.		220	95	Voice vote approval		Mar. 30, 1948
Income Tax Reduction Bill. Provided $4.8 billion reduction in nation's income taxes, effective May 1 and retroactive to Jan. 1.	Dem.	84	64	30	11	Vetoed,
	Rep.	205	0	48	0	Apr. 2,
	A.L.	0	2	..	..	1948
		(Reconsideration vote)				
	Dem.	82	84	27	10	Apr. 2,
	Rep.	229	2	50	0	1948
	A.L.	0	2	..	..	

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Foreign Assistance Act of 1948. Authorized $5.3 billion 1-year European Recovery Program, $275 million for military aid to Greece and Turkey, $463 million in economic and military aid for China, $60 million for U. N. Fund for Children.	Dem. Rep. A.L.	150 167 0	11 62 2	Voice vote approval		Apr. 3, 1948
Air Force and Navy Aircraft Bill. Appropriated $3,198,100,000 for 70-group Air Force and expansion of naval aviation.		Voice vote approval		Voice vote approval		May 21, 1948
Selective Service Act. Provided for registration of all men 18–25 and induction of enough men 19–25 to maintain Army of 837,000, Navy and Marine Corps of 666,882, and Air Force of 502,000.		259	136	Voice vote approval		June 24, 1948
Displaced Persons Bill. Admitted 205,000 European displaced persons, including 3,000 orphans.		Voice vote approval		Voice vote approval		June 25, 1948
Foreign Aid Appropriations. Appropriated funds for 1 year: $5.055 billion for ERP, $400 million for China, $1.3 billion for occupied areas, $225 million for Greece and Turkey, $35 million for U. N. Fund for Children, $70,710,228 for IRO.		318	62	Voice vote approval		June 28, 1948
Housing Bill. Authorized Federal loans for private construction of low-cost homes and apartments; liberalized loans to manufacturers of prefabricated houses.		351	9	Voice vote approval		Aug. 10, 1948
U. N. Loan. Authorized loan of $65 million for building U. N. permanent headquarters in New York City.		164	27	No record vote		Aug 11, 1948
Bill to raise salaries: President's, $75,000 to $100,000 with new $50,000 tax-free allowance; Vice President's and Speaker's, $20,000 to $30,000 with $10,000 tax-free allowance.	Dem. Rep. A.L.	Voice vote approval		42 26 ..	0 9 ..	Jan. 19, 1949
Rent-control bill. Extended controls through June 30, 1950; permitted states and localities to end curbs before that time with consent of governor.	Dem. Rep. A.L.	196 66 1	48 95 0	52 26 ..	0 11 ..	Mar. 30, 1949
ERP authorization: $5,430,000,000 for European recovery, consisting of $1,150,000,000 for April–June and $4,280,000,000 for fiscal year starting July 1.		Voice vote approval		Voice vote approval		Apr. 19, 1949
Housing and slum-clearance bill. Provided for 810,000 dwelling units in 6 years, 5-year slum-clearance program, $325,000,000 in loans and grants for farm housing aid.		Voice vote approval		Voice vote approval		July 15, 1949
North Atlantic Treaty. (For full text, consult index.)	Dem. Rep.	No vote required		50 32	2 11	July 21, 1949
National Security bill. Changed National Military Establishment to executive Department of Defense; made Departments of Army, Navy and Air Force "military departments."		356	7	Voice vote approval		Aug. 10, 1949
Military Assistance Program. Authorized $1,314,010,000 in military aid: for Atlantic Pact countries, $1 billion; Greece and Turkey, $211,370,000; "general area" of China, $75,000,000; and South Korea, Iran and Philippines, $27,640,000.	Dem. Rep. A.L.	172 51 0	24 84 1	Voice vote approval		Oct. 28, 1949
Foreign-aid appropriations: $5,809,990,000, consisting of $4,852,380,000 for ERP, $912,500,000 for Army-occupied areas, $45,000,000 for Greek-Turkish aid, and $110,000 for joint Congressional Foreign-Aid Committee.		Voice vote approval		Voice vote approval		Oct. 2, 1949
Minimum-wage bill. Raised minimum wage from 40c to 75c an hour.		131	19	Voice vote approval		Oct. 26, 1949
Appropriations to support Military Assistance Program.		No record vote		Voice vote approval		Oct. 29, 1949

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Farm bill. Supported prices for wheat, corn, cotton, rice, peanuts at 90% of parity through 1950, 80–90% through 1951, and 75–90% on sliding-scale basis thereafter.		175	34	46	7	Oct. 31, 1949
Bill to repeal federal taxes on oleomargarine.		262	106	59	20	Mar. 16, 1950
Natural-gas bill (Kerr bill). Would have prevented FPC control on prices for natural gas distributed by interstate pipelines.		176	174 (No reconsideration vote)	44	38	Vetoed Apr. 15, 1950
Housing bill. Authorized over $3.5 billion in government loans and mortgage insurance for expansion of housing program. Also turned over to state and local authorities about 150 wartime and veterans' housing projects.		Voice vote approval		Voice vote approval		Apr. 20, 1950
Displaced persons bill. Extended 1948 act to June 30, 1951; increased authorized entry from 205,000 to 341,000; and eliminated discriminatory provisions.		Voice vote approval		49	25	June 16, 1950
Rent-control bill. Extended federal control to Dec. 31, 1950, and for 6 months longer in communities wanting it.	Dem.	150	39	30	18	June 23, 1950
	Rep.	25	106	10	6	
	A.L.	1	0	...	...	
Draft-extension bill. Extended registration and classification for draft to July 9, 1951; authorized President to call National Guard and organized reserves for 21-mo. service.		315	4	76	0	June 30, 1950
Bill to increase Air Force and Army. Expanded Air Force to 70 groups and from 410,000 to 502,000 men; expanded Army from 592,000 to 837,000 men.		315	4	76	0	July 11, 1950
Social Security bill. Will raise present employer's and employee's 1½% payroll tax to 2% in 1954, 2½% in 1960, 3% in 1965, and 3¼% in 1970; provided financial aid to permanently disabled persons in need.		374	1	Voice vote approval		Aug. 28, 1950
Omnibus appropriations bill. Appropriated $35.554 billion, including $62.5 million loan to Spain, $14,680,084,443 for Defense Dept., $1.225 billion for rearming Western Europe, $2.526 billion for Marshall plan, $26.9 million for Point-4 program.		Voice vote approval		Voice vote approval		Sept. 6, 1950
Defense Production Act of 1950. Gave President power to curb prices, wages, and consumer credit, and to increase defense production.		Voice vote approval		Voice vote approval		Sept. 8, 1950
Bill to draft doctors, dentists, etc., up to 50 years of age, for 21-mo. service.		Voice vote approval		Voice vote approval		Sept. 9, 1950
Internal Security Act of 1950. Provided for registering of Communists and their internment in times of emergency.	Dem.	186	18	24	6	Vetoed Sept. 22, 1950
	Rep.	126	1	27	1	
	A.L.	0	1	...	...	
			(Reconsideration vote)			
	Dem.	161	45	26	10	Sept. 23, 1950
	Rep.	125	2	31	0	
	A.L.	0	1	...	...	
Tax-increase bill. Raised income taxes about 17%, corporation taxes about 15%; imposed 10% excise tax on TV sets and quick-freeze units.		328	7	Voice vote approval		Sept. 23, 1950

Bill or treaty	Party	House vote Yea	House vote Nay	Senate vote Yea	Senate vote Nay	Date enacted
Emergency defense-appropriations bill. Appropriated $17,099,902,285, including $3.734 billion for Navy, $3.166 billion for Army, $260 million for atomic-weapon research, etc.		286	30	Voice vote approval		Sept. 27, 1950
Civil-defense bill. Provided $3.1 billion to be supplemented by state and local governments for bomb shelters and other civil defense.		Voice vote approval		Voice vote approval		Jan. 12, 1951
Emergency presidential powers. Gave President powers to modify existing defense contracts.		Voice vote approval		Voice vote approval		Jan. 12, 1951
Twenty-second Amendment. Limit of presidential terms. (For full text, consult index.)	Dem.	47	120	13	23	Feb. 26, 1951
	Rep.	238	0	46	0	
	A.L.	0	1	...	...	
Navy modernization program. Provided for 173 new warships and other vessels suitable for modern atomic warfare.		365	0	Voice vote approval		Mar. 11, 1951
GI insurance law. Provided free $10,000 life insurance to all armed-forces personnel.		Voice vote approval		Voice vote approval		Apr. 25, 1951
Indian grain-loan act. U. S. to lend India $190 million to buy 2 million tons of food grains.		255	82	Voice vote approval		June 15, 1951
Reciprocal Trade Agreements Act. Extended reciprocal trade agreement act to June 12, 1953, and directed President to end any concessions to Soviet bloc.		Voice vote approval		Voice vote approval		June 16, 1951
Draft act. Extended draft to July 1, 1955, and increased service to 24 months; provided preliminary study for universal military service.		339	41	Voice vote approval		June 19, 1951
Defense Production Act. Continued controls to June 30, 1952; barred rollbacks below Jan. 25–Feb. 24, 1951, level.	Dem.	97	108	41	0	June 30, 1951
	Rep.	139	50	30	10	
	Ind.	0	1	...	...	
Defense housing bill. Designed to spur building in defense production areas and near military installations.		Voice vote approval		Voice vote approval		Sept. 1, 1951
Pension bill. Raised to $120 a month the $60–$72 pensions to veterans disabled by nonservice disabilities.		Voice vote approval		Voice vote approval		Vetoed Aug. 6, 1951
		(Reconsideration vote)				
		318	45	69	9	Sept. 18, 1951
Arms appropriation. $56,937,808,030 voted for armed forces.		Unanimous vote		Voice vote approval		Oct. 18, 1951
German peace resolution. Declared state of war with Germany ended.		376	0	Voice vote approval		Oct. 19, 1951
Revenue Act of 1951. Increased income and excise taxes. (See Income tax in index.)	Dem.	147	34	Voice vote approval		Oct. 20, 1951
	Rep.	37	126			
	Ind.	1	0			
Taft-Hartley Law amendment. Permitted union-shop contracts without first polling employees.		307	18	Voice vote approval		Oct. 22, 1951
Atom-data bill. Authorized exchange of certain nonweapon atom data with friendly nations.		Voice vote approval		Voice vote approval		Oct. 30, 1951
Mutual Security Appropriation Bill. $7,328,903,976 voted for global military and economic aid, including $100 million for Spain.		Voice vote approval		Voice vote approval		Oct. 31, 1951

The Cairo Conference

Important provisions of the Conference, which was held Nov. 22-26, 1943:

The several military missions have agreed upon future military operations against Japan. The Three Great Allies expressed their resolve to bring unrelenting pressure against their brutal enemies by sea, land, and air. This pressure is already rising.

The Three Great Allies are fighting this war to restrain and punish the aggression of Japan. They covet no gain for themselves and have no thought of territorial expansion. It is their purpose that Japan shall be stripped of all the islands in the Pacific which she has seized or occupied since the beginning of the first World War in 1914, and that all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China. Japan will also be expelled from all other territories which she has taken by violence and greed. The aforesaid Three Great Powers, mindful of the enslavement of the people of Korea, are determined that in due course Korea shall become free and independent.

With these objectives in view the three Allies, in harmony with those of the United Nations at war with Japan, will continue to persevere in the serious and prolonged operations necessary to procure the unconditional surrender of Japan.

The Teheran Conference

(Nov. 28-Dec. 1, 1943)

The President of the United States of America, the Premier of the Union of Soviet Socialist Republics, and the Prime Minister of the United Kingdom, have consulted with each other and with the Prime Minister of Iran, desire to declare the mutual agreement of their three Governments regarding relations with Iran.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom recognize the assistance which Iran has given in the prosecution of the war against the common enemy, particularly by facilitating transportation of supplies from overseas to the Soviet Union. The three Governments realize that the war has caused special economic difficulties for Iran and they are agreed that they will continue to make available to the Government of Iran such economic assistance as may be possible, having regard to the heavy demands made upon them by their world-wide military operations and to the world-wide shortage of transport, raw materials and supplies for civilian consumption.

With respect to the post-war period, the Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are in accord with the Government of Iran that any economic problem confronting Iran at the close of hostilities should receive full consideration along with those of the other members of the United Nations by conferences or international agencies held or created to deal with international economic matters.

The Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom are at one with the Government of Iran in their desire for the maintenance of the independence, sovereignty and territorial integrity of Iran. They count upon the participation of Iran together with all other peace-loving nations in the establishment of international peace, security and prosperity after the war in accordance with the principles of the Atlantic Charter, to which all four governments have continued to subscribe.

The Yalta Conference

Important provisions of the Conference, which was held Feb. 4-11, 1945:

The Occupation and Control of Germany

We have agreed on common policies and plans for enforcing the unconditional surrender terms which we shall impose together on Nazi Germany after German armed resistance has been finally crushed. These terms will not be made known until the final defeat of Germany has been accomplished. Under the agreed plan, the forces of the three powers will each occupy a separate zone of Germany. Coordinated administration and control has been provided for under the plan through a central Control Commission, consisting of the supreme commanders of the three powers, with headquarters in Berlin. It has been agreed that France should be invited by the three powers, if she should so desire, to take over a zone of occupation, and to participate as a fourth member of the Control Commission. The limits of the French zone will be agreed upon by the four Governments concerned through their representatives on the European Advisory Commission.

It is our inflexible purpose to destroy German militarism and nazism and to ensure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all

German armed forces; break up for all time the German General Staff that has repeatedly contrived the resurgence of German militarism; remove or destroy all German military equipment; eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment and exact reparation in kind for the destruction wrought by the Germans; wipe out the Nazi Party, Nazi laws, organizations, and institutions, remove all Nazi and militarist influences from public office and from the cultural and economic life of the German people; and take in harmony such other measures in Germany as may be necessary to the future peace and safety of the world. It is not our purpose to destroy the people of Germany, but only when nazism and militarism have been extirpated will there be hope for a decent life for Germans, and a place for them in the comity of nations.

Terms Under Which Russia Entered the War Against Japan

The leaders of the Three Great Powers—the Soviet Union, the United States of America and Great Britain—have agreed that in two or three months after Germany has surrendered and the war in Europe has terminated the Soviet Union shall enter into the war against Japan on the side of the Allies on condition that:

1. The status quo in Outer Mongolia (The Mongolian People's Republic) shall be preserved;

2. The former rights of Russia violated by the treacherous attack of Japan in 1904 shall be restored, viz.:

(a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union.

(b) the commercial port of Dairen shall be internationalized, the preeminent interests of the Soviet Union in this port being safeguarded and the lease of Port Arthur as a naval base of the U.S.S.R. restored,

(c) the Chinese-Eastern Railroad and the South-Manchurian Railroad which provides an outlet to Dairen shall be jointly operated by the establishment of a joint Soviet-Chinese Company, it being understood that the preeminent interests of the Soviet Union shall be safeguarded and that China shall retain full sovereignty in Manchuria;

3. The Kurile Islands shall be handed over to the Soviet Union.

It is understood, that the agreement concerning Outer Mongolia and the ports and railroads referred to above will require concurrence of Generalissimo Chiang Kai-shek. The President will take measures in order to obtain this concurrence on advice from Marshal Stalin.

The Heads of the Three Great Powers have agreed that these claims of the Soviet Union shall be unquestionably fulfilled after Japan has been defeated.

For its part the Soviet Union expresses its readiness to conclude with the National Government of China a pact of friendship and alliance between the U.S.S.R. and China in order to render assistance to China with its armed forces for the purpose of liberating China from the Japanese yoke.

The Potsdam Declaration

Text of the declaration issued at Potsdam, Germany, July 26, 1945, outlining the terms under which Japan would be allowed to surrender:

1. We, the President of the United States, the President of the national government of the Republic of China and the Prime Minister of Great Britain, representing the hundreds of millions of our countrymen, have conferred and agreed that Japan shall be given the opportunity to end this war.

2. The prodigious land, sea, and air forces of the United States, the British Empire and China, many times reinforced by their armies and air fleets from the west, are poised to strike the final blow at Japan. This military power is sustained and inspired by the determination of all allied nations to prosecute the war against Japan until she ceases to resist.

3. The result of the futile and senseless German resistance to the might of the aroused free peoples of the world stands forth in awful clarity as an example to the people of Japan.

The might that now converges on Japan is immeasurably greater than that which, when applied to the resisting Nazis, necessarily laid waste to the land, the industry, and the method of life of the whole German people.

The full application of our military power, backed by our resolve, will mean the inevitable and complete destruction of the Japanese armed forces and just as inevitably the utter devastation of the Japanese homeland.

4. The time has come for Japan to decide whether she will continue to be controlled by these self-willed militaristic advisers whose unintelligent calculations have brought the empire of Japan to the threshod of annihilation, or whether she will follow the path of reason.

5. The following are our terms: we will not deviate from them; there are no alternatives; we shall brook no delay.

6. There must be eliminated for all time the authority and influence of those

who have deceived and misled the people of Japan into embarking on world conquest, for we insist that a new order of peace, security, and justice will be impossible until irresponsible militarism is driven from the world.

7. Until such a new order is established and until there is convincing proof that Japan's war-making power is destroyed, points in Japanese territory to be designated by the Allies shall be occupied to secure the achievement of the basic objectives we are here setting forth.

8. The terms of the Cairo declaration shall be carried out and Japanese sovereignty shall be limited to the Islands of Honshu, Hokkaido, Kyushu, Shikoku and such minor islands as we determine.

9. Japanese military forces after being completely disarmed shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives.

10. We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals, including those who have visited cruelties upon our prisoners.

The Japanese government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people. Freedom of speech and religion and of thought, as well as respect for the fundamental human rights, shall be established.

11. Japan shall be permitted to maintain such industries as will sustain her economy and permit the payment of just reparation in kind, but not those industries which will enable her to rearm for war.

To this end, access to, as distinguished from control of, raw materials shall be permitted. Eventual Japanese participation in world trade relations shall be permitted.

12. The occupying forces of the Allies shall be withdrawn from Japan as soon as these objectives have been accomplished and there has been established in accordance with the freely expressed will of the Japanese people a peacefully inclined and responsible government.

13. We call upon the government of Japan to proclaim now the unconditional surrender of all Japanese armed forces, and to provide proper and adequate assurances of their good faith in such action. The alternative for Japan is prompt and utter destruction.

North Atlantic Treaty

Signed at Washington, D.C., April 4, 1949

The Parties to this Treaty reaffirm their faith in the purposes and principles of the Charter of the United Nations and their desire to live in peace with all peoples and all governments.

They are determined to safeguard the freedom, common heritage and civilization of their peoples, founded on the principles of democracy, individual liberty and the rule of law.

They seek to promote stability and well-being in the North Atlantic area.

They are resolved to unite their efforts for collective defense and for the preservation of peace and security.

They therefore agree to this North Atlantic Treaty:

Article 1

The Parties undertake, as set forth in the Charter of the United Nations, to settle any international disputes in which they may be involved by peaceful means in such a manner that international peace and security, and justice, are not endangered, and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations.

Article 2

The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well-being. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them.

Article 3

In order more effectively to achieve the objectives of this Treaty, the Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack.

Article 4

The Parties will consult together whenever, in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened.

Article 5

The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all; and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defense recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forthwith,

ndividually and in concert with the other Parties, such action as it deems necessary, ncluding the use of armed force, to restore and maintain the security of the North Atlantic area.

Any such armed attack and all measures taken as a result thereof shall immediately be reported to the Security Council. Such measures shall be terminated when the Security Council has taken the measures necessary to restore and maintain international peace and security.

Article 6

For the purpose of Article 5 an armed attack on one or more of the Parties is deemed to include an armed attack on the territory of any of the Parties in Europe or North America, on the Algerian departments of France, on the occupation forces of any Party in Europe, on the islands under the jurisdiction of any Party in the North Atlantic area north of the Tropic of Cancer or on the vessels or aircraft in this area of any of the Parties.

Article 7

This Treaty does not affect, and shall not be interpreted as affecting, in any way the rights and obligations under the Charter of the Parties which are members of the United Nations, or the primary responsibility of the Security Council for the maintenance of international peace and security.

Article 8

Each Party declares that none of the international engagements now in force between it and any other of the Parties or any third state is in conflict with the provisions of this Treaty, and undertakes not to enter into any international engagement in conflict with this Treaty.

Article 9

The Parties hereby establish a council, on which each of them shall be represented, to consider matters concerning the implementation of this Treaty. The council shall be so organized as to be able to meet promptly at any time. The council shall set up such subsidiary bodies as may be necessary; in particular it shall establish immediately a defense committee which shall recommend measures for the implementation of Articles 3 and 5.

Article 10

The Parties may, by unanimous agreement, invite any other European state in a position to further the principles of this Treaty and to contribute to the security of the North Atlantic area to accede to this Treaty. Any state so invited may become a party to the Treaty by depositing its instrument of accession with the Government of the United States of America. The Government of the United States of America will inform each of the Parties of the deposit of each such instrument of accession.

Article 11

This Treaty shall be ratified and its provisions carried out by the Parties in accordance with their respective constitutional processes. The instruments of ratification shall be deposited as soon as possible with the Government of the United States of America, which will notify all the other signatories of each deposit. The Treaty shall enter into force between the states which have ratified it as soon as the ratifications of the majority of the signatories including the ratifications of Belgium, Canada, France, Luxembourg, the Netherlands, the United Kingdom and the United States, have been deposited and shall come into effect with respect to other states on the date of the deposit of their ratifications.

Article 12

After the Treaty has been in force for ten years, or at any time thereafter, the Parties shall, if any of them so requests, consult together for the purpose of reviewing the Treaty, having regard for the factors then affecting peace and security in the North Atlantic area, including the development of universal as well as regional arrangements under the Charter of the United Nations for the maintenance of international peace and security.

Article 13

After the Treaty has been in force for twenty years, any Party may cease to be a party one year after its notice of denunciation has been given to the Government of the United States of America, which will inform the Governments of the other Parties of the deposit of each notice of denunciation.

Article 14

This Treaty, of which the English and French texts are equally authentic, shall be deposited in the archives of the Government of the United States of America. Duly certified copies thereof will be transmitted by that Government to the Governments of the other signatories.

Tripartite Security Treaty

(United States, Australia, New Zealand)

Major provisions of the Tripartite agreement signed on Sept. 1, 1951, at San Francisco:

1. The parties undertake to settle by peaceful means any international disputes in which they may be involved.

2. The parties will maintain and develop their individual and collective capacity to resist armed attack.

3. The parties will consult together whenever the territorial integrity, political

independence or security of any of the parties is threatened in the Pacific.

4. Each party recognizes that an armed attack in the Pacific area on either of the other parties would be dangerous to its own peace and safety.

5. The parties hereby establish a council, consisting of their foreign ministers or their deputies, to consider matters concerning the implementation of this treaty.

6. This treaty shall remain in force indefinitely.

A Defense Treaty similar in its provisions to the Tripartite Security Treaty was signed by the United States and the Philippines in Washington, D. C., Aug 30, 1951.

United States–Japanese Treaty

Main provisions of the U. S.-Japanese Security Treaty signed at San Francisco on Sept. 8, 1951:

1. Japan grants and the U. S. accepts the right to dispose U. S. land, air and sea forces in and about Japan. Such forces may be utilized to contribute to the maintenance of international peace and security in the Far East and to the security of Japan against armed attack from without, including assistance given at the express request of the Japanese government to put down large scale riots and disturbances in Japan caused through instigation or intervention by an outside power or powers.

2. Japan will not grant without the prior consent of the U. S. any bases or any rights, powers or authority whatsoever relating to bases, or the right of garrison or maneuver or transit of ground, air or naval forces of any third power.

3. This treaty shall expire whenever in the opinion of the governments of the U. S. and of Japan, U. N. arrangements or alternate individual or collective dispositions satisfactorily provide for the maintenance of international peace and security in the Japan area.

Japanese Peace Treaty

The Japanese Peace Treaty was signed at San Francisco on September 8, 1951, by 49 nations; the U.S.S.R., Poland and Czechoslovakia were present but refused to sign. Among the major provisions of the treaty are the following:

Peace: The state of war between Japan and the Allies is terminated.

Sovereignty: Japan's full sovereignty is recognized as is its right to apply for U. N. membership.

Territory: Japan recognizes the independence of Korea; renounces all rights, titles or claims to Formosa, the Pescadores, the Kuriles, Sakhalin, the Pacific islands formerly under mandate to Japan, the Antarctic area, Spratly Island and the Paracels.

Japan agrees to U. N. trusteeship over the Ryukyu and Daito Islands, the Bonins, Rosario Island, the Volcano Islands, Parece Vela and Marcus Island. Disposition of Japanese property on these islands is to be negotiated by Japan and the administering authorities.

Security: Japan agrees to settle its international disputes peaceably, to refrain from the threat of or the use of force and to abide by the principles of the U. N.

All occupation forces are to be withdrawn as soon as possible but not later than 90 days after a majority of the signatory countries have given notice of ratification of this treaty. Nothing in this provision shall, however, prevent the stationing or retention of foreign armed forces in Japanese territory by agreement with one or more of the Allies.

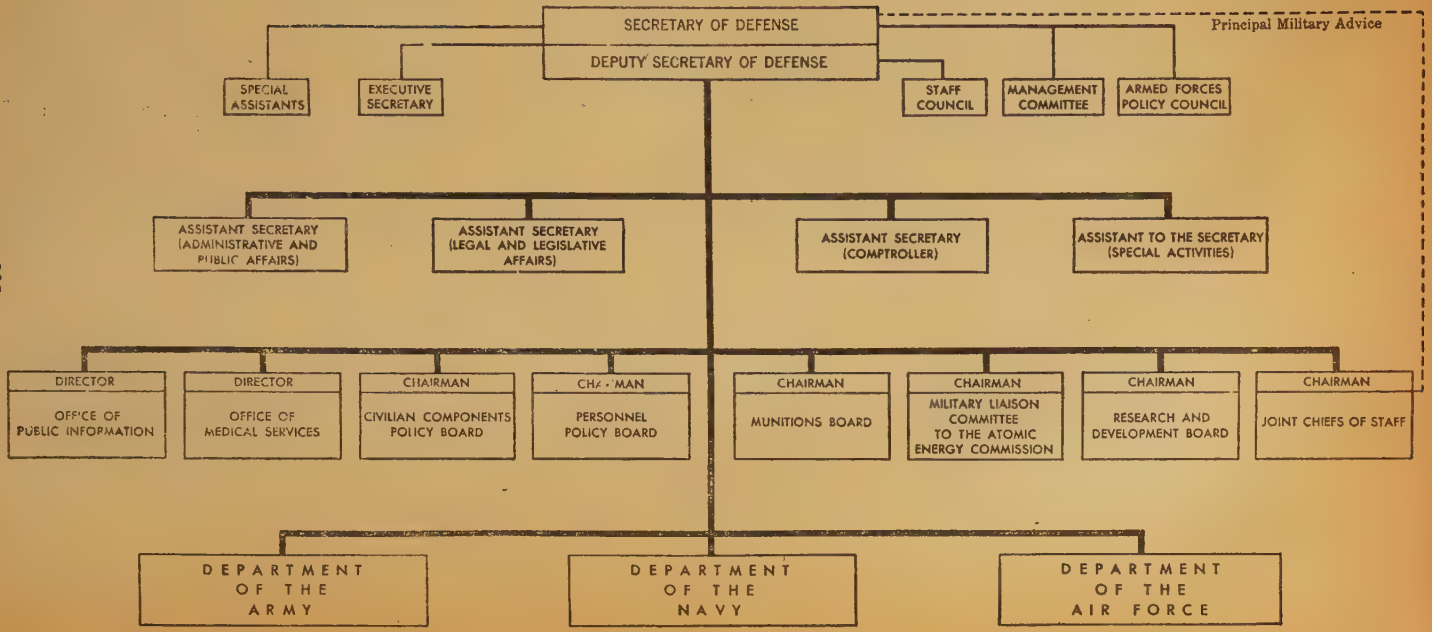
Political-Economic Clauses: Japan may enter into fisheries treaties; may negotiate most-favored-nation trade and maritime treaties with the Allies; renounces all special rights and interests in China.

Japan accepts the judgments of the International Military Tribunal and Allied War Crimes Courts.

Claims and Property: Japan recognizes its responsibility to pay reparations but the Allies recognize its limited economic capacity; therefore, Japan shall pay through goods to be manufactured in Japan from raw materials provided by the victimized nations and by services. The Allies may retain certain properties seized from Japan but require the latter to return their properties within 6 months. Japan recognizes Allied industrial, literary and artistic property rights. It agrees to indemnify prisoners of war who suffered unduly but renounces similar claims against the Allies.

Settlement of Disputes: Any disagreements arising out of the interpretation of this treaty and not otherwise settled shall be submitted to the International Court of Justice.

DEPARTMENT OF DEFENSE



THE UNITED STATES ARMED SERVICES

THE UNITED STATES MILITARY ACADEMY

Source: U. S. Military Academy.

Established by an Act of Congress on Mar. 16, 1802, the U. S. Military Academy opened on July 4, 1802, at West Point, N. Y., with fewer than a dozen cadets. In 1812, 250 cadets were authorized, and a regular curriculum was established.

The present 2500 cadets include:

4 from each Congressional district
8 from each State at large
4 each from Hawaii and Alaska
6 from the District of Columbia
4 natives from Puerto Rico
2 from the Panama Canal Zone
3 recommended by the Vice President
40 graduates of "honor military schools"
40 sons of veterans of World Wars I or II who died as a result of war service
89 sons of members of the Regular Army, Navy or Marine Corps
180 from the Regular Army and National Guard
4 from the Republic of the Philippines

All appointments are made by the President upon recommendation of the respective nominating authorities.

Candidates must be between the ages of 17 and 22, unmarried, and able to meet the mental, physical and physical aptitude requirements. They may satisfy the educational requirements by taking the regular entrance examinations, by presenting acceptable secondary school certificates and passing special examinations in English and mathematics, or by presenting certificates showing completion of at least one semester of acceptable college work. However, all candidates must take the West Point Aptitude Test.

A cadet receives $936 for each of his 4 years at the Academy, plus an allowance for the cost of one ration a day. From this, he must pay all expenses other than for medical attention and quarters. Upon graduation with a degree of Bachelor of Science, he is commissioned as a second lieutenant and must serve at least 3 years.

THE UNITED STATES NAVAL ACADEMY

Source: U. S. Naval Academy.

On October 10, 1845, the Naval School was established at Fort Severn, Annapolis, Maryland. Five years later it was renamed the United States Naval Academy, and the following year a regular four-year course was adopted. At present, the curriculum consists of courses in the following departments: executive; seamanship and navigation; ordnance and gunnery; marine engineering; aviation; electrical engineering; mathematics; English, history and government; foreign languages; hygiene; and physical training.

Candidates are selected as follows:

5 from the District of Columbia
40 sons of men and women killed in action or who have died, or may hereafter die of wounds or injuries, or disease contracted, in active service in World Wars I and II
75 annually from among sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard.
160 enlisted Navy and Marine personnel selected annually by competitive examination
160 annually chosen by the Secretary of the Navy from the Naval and Marine Corps Reserves
5 Puerto Ricans chosen by the Resident Commissioner of Puerto Rico
1 on the recommendation of the Governor of Puerto Rico
4 Filipinos designated by the President of the United States
1 from the Canal Zone
20 annually from schools designated by the Army and Navy as honor schools and from NROTC schools.
20 from the American republics and the Dominion of Canada
Unlimited: Sons of persons who have been or shall hereafter be awarded the Congressional Medal of Honor.

Each Senator, Representative, delegate to Congress, and the Vice President may have not more than 5 Midshipmen at the Naval Academy. The President selects the 5 from the District of Columbia, the 40 sons of deceased veterans of World Wars and the 75 sons of officers and enlisted men in the regular Army, Navy, Marine Corps, Air Force and Coast Guard. The President also appoints the sons of holders of the Medal of Honor.

Subject to the existence of vacancies and the availability of accommodations, the Secretary of the Navy may nominate for appointment a limited number of additional candidates. These must be recommended by the Academic Board from among the fully qualified, regularly appointed alternate and competitive candidates of the same year who were unable to enter because of the appointment of men preceding them in order of nomination.

Candidates for admission must be between 17 and 22 years of age on July 1 of their entering year. They may qualify by taking entrance examination, by presenting an acceptable secondary school certificate and taking special examinations in English and mathematics, or by completing a sufficient number of acceptable college courses. Candidates must also meet the physical requirements and must be unmarried.

Midshipmen are paid $936 a year. Graduates of the Naval Academy are granted Bachelor of Science degrees and are commissioned as ensigns in the Navy or second lieutenants in the Marine Corps. In addition, at the present time, a limited number of the members of graduating classes may be commissioned in the U. S. Air Force.

THE U. S. COAST GUARD ACADEMY

Source: U. S. Coast Guard Academy.

On July 31, 1876, the Coast Guard Academy, then known as the "School of Instruction" of the Revenue Cutter Service, was established by law.

The schooner J. C. DOBBIN was first used as a school ship, later being succeeded in 1878 by the CHASE. In 1890 the CHASE established winter quarters at Curtis Bay, South Baltimore, Maryland, and in 1907 was superseded by the ITASCA. In 1910 the School was moved to New London. In 1914, the school was named the Revenue Cutter Academy. The following year, when the Revenue Cutter Service was merged with the Life Saving Service to form the Coast Guard, the present name of Coast Guard Academy was established. In 1932, the Coast Guard Academy was moved from Fort Trumbull to another site in New London, where it has remained to this day.

The Academy is accredited by the Association of American Universities and grants the degree of Bachelor of Science in Marine Engineering to each graduate. The curriculum includes mathematics, physics, marine engineering, seamanship, navigation, history, literature, naval architecture, and other engineering courses.

Candidates must be between 17 and 22 years of age, physically sound, unmarried, and at least 5'6" tall. They must agree to remain unmarried until graduation and to serve at least 4 years after graduation. Cadets are paid $980 a year and are commissioned as ensigns in the Coast Guard upon graduation.

U. S. MERCHANT MARINE ACADEMY

Source: U.S. Merchant Marine Academy.

The U. S. Merchant Marine Cadet Corps was established Mar. 15, 1938, and its Academy is located on the south shore of Long Island Sound at Kings Point, N. Y. The Academy has a complement of 1,000 cadet-midshipmen representing every U. S. state, D. C., Alaska, the Canal Zone, Hawaii, and Puerto Rico. In addition, it is authorized to receive each year, for the full period of training, 50 Filipinos and not more than 12 candidates from Latin American republics.

Appointments to the Academy are governed by a state and territory quota system, based on population, and are made through competitive examinations. A candidate must be an unmarried citizen between 17 and 21, with a three-year age waiver granted to veterans. He must have 15 high-school credits, including 1 unit in algebra, 1 in plane geometry, 1 in physics, and 3 in English.

The course is 4 years, consisting of 1 year as Fourth Classman at the Academy, 1 year as Third Classman aboard a merchant ship, and 2 years as Second and First Classman at the Academy. Study includes marine engineering, navigation, electricity, ship construction, naval science and tactics, economics, business, languages, history, and other subjects.

On completion of their courses, cadet-midshipmen are examined for their original Merchant Marine license as deck or engineer officers in any ship in the U. S. Merchant Marine. They also receive Bachelor of Science degrees and commissions as officers in the U. S. Maritime Service and the U. S. Naval Reserve. Over 9,000 officers have been graduated from the Cadet Corps and its Academy.

History of the Armed Services

Source: Encyclopaedia Britannica.

U. S. ARMY

When Gen. Washington, on July 3, 1775, took command of the Colonial militia (about 8,000 men) besieging Boston, the event marked the union of the forces of the 13 separate Colonies under one head, and the U. S. Army was born. In Jan., 1776, the Continental Congress decided that these troops should be separate in organization from those of local communities and established them as the U. S. Regular Army. When these forces were disbanded after the war only some 80 officers and men were retained to guard U. S. Army stores. From this humble beginning, in the ensuing years, the strength of the U. S. Army rose or fell according to national and international conditions. A peak strength of over 7,000,000 was reached in World War II.

U. S. NAVY

In Sept. and Oct., 1775, Gen. Washington maintained 5 schooners and a sloop with officers and men from his army for the purpose of preying on inbound English supply vessels and thereby caused the birth of the U. S. Navy. In Dec., 1775, the Continental Congress expanded this by providing for construction of naval craft and the appointment of a marine committee (one member from each colony) which continued until 1794 when further ships and manpower were provided for by act of Congress. Upon completion of these ships in 1798, a Navy Department was established as the controlling agency, and the secretary given Cabinet rank.

U. S. AIR FORCES

Until the establishment, on July 26, 1947, of the Department of Defense which united the services under one command, U. S.

military air forces operated under the several commands. In the Army, operations came under the Signal Corps until 1918, when the U. S. Air Service was established. In 1926, the U. S. Air Corps came into being and remained until 1942 when the name was changed to the U. S. Air Forces.

In the Navy, ship-based fighters and bombers were originally attached to the several fleets and under the orders of the fleet commanders.

Marine Corps aviation came under control of the Navy.

With the establishment of the Defense Department, in 1947, the air arm was given equal rank with the ground and sea forces.

U. S. COAST GUARD

This service was originally created by an act of Congress approved on Jan. 28, 1915, which combined the then Revenue Cutter Service and the Life-Saving Service. On July 1, 1939, the Lighthouse Service of the Department of Commerce was also consolidated into this unit. The Coast Guard, through its antecedents, is the oldest organization under the Federal government and, until the Navy Department was established in 1798, it served as the only U. S. armed force afloat. It operates under the Treasury Department in time of peace, serving in the capacity of life and property saving, prevention of smuggling, clearance of debris in harbors, maintaining an ice patrol in northern waters, flood service, etc. In time of war it is attached to the Navy Department, and in the recent conflict, it performed useful and admirable service.

U. S. MARINE CORPS

Founded in 1775 and observing its official birthday on Nov. 10, the U. S. Marine Corps was developed to provide the Navy with a trained land-fighting force. This unit has been used successfully in every U. S. war beginning with the Revolution when it consisted of 2 battalions. It reached its high in achievement in the recent war when its some 400,000 men and officers performed historic deeds in the Pacific Theater of Operations.

Armies of the World

Source: Encyclopaedia Britannica

Country	Army personnel[1]	Year	Country	Army personnel[1]	Year
Albania	60,000	(2)	Iran	130,000	(2)
Argentina	100,000	1950	Italy	250,000	(5)
Australia	20,000	1951	Mexico	50,000	1950
Belgium	150,000	1951	Netherlands	175,000	1949
Brazil	118,000	1948	New Zealand	11,000	(3)
Bulgaria	55,000	(5)	Norway	15,000	1951
Canada	43,120[4]	1951	Pakistan	250,000	1949
Chile	25,000	1948	Poland	510,000	1950
China (Communist)	4,000,000	1951	Portugal	64,000	1951
China (Nationalist)	500,000	1951	Rumania	300,000[6]	1951
Czechoslovakia	160,000	(2)	South Africa, U. of	4,640	(2)
Denmark	12,000	(2)	Spain	450,000	(2)
Egypt	160,000	(2)	Sweden	60,000	(2)
Finland	34,400	(5)	Turkey	500,000	(2)
France	500,000	1951	U.S.S.R.	3,300,000	1951
Greece	132,000	1948	United Kingdom	527,000	1951
Hungary	65,000	(5)	United States	1,552,000	1951
India	300,000	1950	Yugoslavia	500,000	1950

[1] Estimated, unless otherwise indicated. [2] Not specified. [3] Stabilized peacetime army. [4] Official figure. [5] Fixed by 1947 peace treaty. [6] Despite the 1947 peace treaty, which limited the army to 125,000 men.

Selective Service Classifications

I-A: Available for immediate service.

I-A-O: Conscientious objector available for non-combatant military service.

I-C: Members of the armed forces, Coast Guard, Coast and Geodetic Survey or Public Health Service or certain registrants separated therefrom.

I-D: Members of reserve components or student taking military training.

II-A: Registrant deferred because of civilian occupation (except agriculture).

II-C: Deferred because of agricultural occupation.

III-A: Registrant with dependents.

IV-A: Registrant who has completed service; sole surviving son of parents whose other child or children died in World War II.

IV-B: Officials deferred by law.

IV-C: Aliens.

IV-D: Ministers of religion or divinity students.

IV-E: Conscientious objectors opposed to combatant and non-combatant training and service.

IV-F: Physically, mentally or morally unfit.

V-A: Registrant over age of liability for military service.

U. S. Armed Forces Monthly Pay Rates for Officers

Source: Department of Defense, Public Information Office.

Rank				Monthly allowances for quarters	
Army, Air Force and Marine Corps	Navy, Coast Guard and Coast and Geodetic Survey	Pay grade	Monthly pay	With dependents	With no dependents
General of the Army	Fleet Admiral	O-8	$926.25	$150.00	$120.00
General	Admiral	O-8	926.25	150.00	120.00
Lieutenant General	Vice Admiral	O-8	926.25	150.00	120.00
Major General	Rear Admiral (upper half)	O-8	926.25	150.00	120.00
Brigadier General	Rear Admiral (lower half) and Commodore	O-7	769.50	150.00	120.00
Colonel	Captain	O-6	570.00	120.00	105.00
Lieutenant Colonel	Commander	O-5	456.00	120.00	90.00
Major	Lieutenant Commander	O-4	334.75	105.00	82.50
Captain	Lieutenant	O-3	313.50	90.00	75.00
First Lieutenant	Lieutenant (junior grade)	O-2	249.30	82.50	67.50
Second Lieutenant	Ensign	O-1	213.75	75.00	60.00
Chief Warrant Officer (appt. by Sec. of Army)	Chief Warrant Officer	W-4	320.10	105.00	82.50
Same	Same	W-3	291.00	90.00	75.00
Chief Warrant Officer	Same	W-2	254.63	82.50	67.50
Warrant Officer (junior grade)	Warrant Officer	W-1	210.98	75.00	60.00

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

O–8 —$28.50 after 30 years.
O–7 —$28.50 after 26 and 30 years.
O–6 —$14.25 after 16 years; $28.50 after 18, 22, 26 and 30 years.
O–5 —$14.25 after 12, 14 and 16 years; $28.50 after 18, 22 and 26 years.
O–4 —$14.25 after 8, 10, 12, 14 and 16 years; $28.50 after 18, 22 and 26 years.
O–3 —$14.25 after 4, 6, 8, 10, 12, 14, 16, 18 and 22 years.
O–2 —$14.25 after 2, 4, 6, 8, 10, 12 and 14 years.
O–1 —$14.25 after 2, 4, 6, 8, 10, 12, and 14 years.
W–4 —$14.55 after 6, 8, 10, 12, 14, 16, 18, 22, 26 and 30 years.
W–3 —$7.275 after 6, 8, 10, 12, 14 and 16 years; $14.55 after 18, 22, 26 and 30 years.
W–2*—$7.275 after 8, 10, 12, 14 and 16 years; $14.55 after 18, 22, 26 and 30 years.
W–1†—$7.275 after 6, 8, 10, 12, 14, and 16 years; $14.55 after 18, 22 and 26 years.

* For figuring increases, use $254.625 for original basic pay. † For figuring increases, use $210.975 for original basic pay.

Insignia and Ranks of the Armed Forces

Army		Navy	
Insignia	Rank	Insignia	Rank
Five stars	General of the Army	Five stars	Fleet Admiral
Four stars	General	Four stars	Admiral
Three stars	Lieutenant General	Three stars	Vice Admiral
Two stars	Major General	Two stars	Rear Admiral
One star	Brigadier General	One star	Commodore
Silver eagle	Colonel	Silver eagle	Captain
Silver maple leaf	Lieutenant Colonel	Silver maple leaf	Commander
Gold maple leaf	Major	Gold maple leaf	Lt. Commander
Two silver bars	Captain	Two silver bars	Lieutenant
One silver bar	First Lieutenant	One silver bar	Lieutenant (jg)
One gold bar	Second Lieutenant	One gold bar	Ensign
Gold bar with rounded ends, brown-enamel top, longitudinal center of gold (⅜" wide x 1" long)	Chief Warrant Officer	Warrant specialty in silver	Chief Warrant Officer
Same as Chief Warrant Officer but with latitudinal center of gold	Warrant Officer (jg)	Warrant specialty in gold	Warrant Officer

U. S. Armed Forces Monthly Pay Rates for Enlisted Personnel

Source: Department of Defense, Public Information Office.

Army rank	Navy rank	Air Force rank	Pay grade	Monthly pay	Monthly allowances for quarters: With dependents	Monthly allowances for quarters: With no dependents
Master Sgt. & 1st Sgt.	Chief	Master Sgt. & 1st Sgt.	E-7	$198.45	$57.50	$45.00
Sergeant First Class	Mate First Class	Technical Sergeant	E-6	169.05	67.50	45.00
Sergeant	Mate Second Class	Staff Sergeant	E-5	139.65	67.50	45.00
Corporal	Mate Third Class	Sergeant	E-4	117.60	45.00*	45.00*
Private First Class	Seaman	Corporal	E-3	95.55	45.00	45.00
Private	Seaman Apprentice	Private First Class	E-2	82.50	45.00	45.00
Recruit†	Seaman Recruit†	Private†	E-1	80.00	45.00	45.00
Recruit‡	Seaman Recruit‡	Private‡	E-1	75.00	45.00	45.00

* Those enlisted personnel in E-4 category with over 7 years' service receive $67.50 monthly allowance for quarters if quarters are not furnished. The law considers them (as well as all the lower categories) as being without dependents with less than 7 years' service. † With over 4 months' service. ‡ With less than 4 months' service.

Special Pay for Longevity

(Amounts listed below are monthly increases in the basic pay for longevity of service)

E–7—$7.35 after 4, 6, 8, 10, 12, 14 and 16 years; $14.70 after 18, 22 and 26 years.

E–6—$7.35 after 4, 6, 8, 10, 12, 14 and 16 years; $14.70 after 18 and 22 years.

E–5—$7.35 after 2, 4, 6, 8, 10, 12, 14 and 16 years; $14.70 after 18 and 22 years.

E–4—$7.35 after 2, 4, 6, 8, 10, 12, 14 and 16 years; $14.70 after 18 years.

E–3—$7.35 after 2, 4, 6, 8, 10, 12 and 14 years.

E–2—$7.50 after 2, 4, 6, 8, and 10 years.

E–1—$7.50 after 2 and 4 years.

HAZARDOUS-DUTY PAY

Members of the uniformed services are entitled to receive incentive pay for the performance of hazardous duty required by competent orders under the following conditions: (1) frequent and regular participation in aerial flights not as a crew member; (2) frequent and regular participation in glider flights; (3) parachute jumping as an essential part of military duty; (4) demolition of explosives as a primary duty, including training for such duty; (5) duty at a submarine escape training tank when such duty involves participation in training; (6) duty at the Navy Deep Sea Diving School or Navy Experimental Diving unit when such duty involves participation in training.

Pay grade	Monthly rate	Pay grade	Monthly rate
O-8	$150.00	W-2	$100.00
O-7	150.00	W-1	100.00
O-6	210.00	E-7	75.00
O-5	180.00	E-6	67.50
O-4	150.00	E-5	60.00
O-3	120.00	E-4	52.50
O-2	110.00	E-3	45.00
O-1	100.00	E-2	37.50
W-4	100.00	E-1	30.00
W-3	100.00		

ALLOWANCES FOR SUBSISTENCE

Officers receive $42.00 per month. Enlisted personnel receive allowances for subsistence under the following provisions: (1) when rations in kind are not available, $2.25 per day; (2) when permission to mess separately is granted, $1.05 per day; (3) when assigned to duty under emergency conditions where no government messing facilities are available, up to and not to exceed $3.00 per day.

SEA AND FOREIGN DUTY

Pay grade	Monthly rates	Pay grade	Monthly rates
E-7	$22.50	E-3	$9.00
E-6	20.00	E-2	8.00
E-5	16.00	E-1	8.00
E-4	13.00		

U. S. Navy Combatant Vessels

Type	Number*
Carriers	12
Light carriers and carrier escorts	15
Battleships	3
Cruisers	15
Destroyers and destroyer escorts	250
Submarines	88
Amphibious craft, mine and patrol ships, and auxiliaries	684†
Total	1,067‡

* Commissioned; as of July 1, 1951. † Approximate. ‡ In addition, there are 31 commissioned vessels in Military Sea Transportation Service.

WORLD WAR II CASUALTIES TO THE OTHER NATIONS

NOTE: The information included in the table below was gathered from letters from official sources and from official and semiofficial documents. The British Commonwealth figures are official. U. S. figures are to be found elsewhere in this section.

Country	Killed	Wounded	Missing	Prisoners of war	Total
The Axis Nations					
Austria	220,000	170,000	80,000	498,800	968,800
Bulgaria	30,000	.....	.....	.....	30,000
Germany	3,250,000	7,250,000	12,900,000*	.....	23,400,000
Hungary	70,000	.....	.....	.....	70,000
Italy	722,000	2,305,500	1,044,000*	.....	4,071,500
Japan	1,471,000	2,191,000	6,115,000*	.....	9,777,000
Rumania	63,000	.....	137,000*	.....	200,000
The United Nations					
Belgium	38,000	121,000	71,000*	.....	230,000
Brazil	451	2,722	23	35	3,231
British Commonwealth:					
Australia	23,365	39,803	6,030	26,363	95,561
Canada	37,476	53,174	1,843	9,045	101,538
Colonies	6,877	6,972	14,208	8,115	36,172
India	24,338	64,354	11,754	79,489	179,935
New Zealand	10,033	19,314	2,129	8,453	39,929
South Africa, U. of	6,840	14,363	1,841	14,589	37,633
United Kingdom	244,723	277,080	53,039	180,405	755 257
Total	353,652	475,070	90,844	326,459	1,246,025
China	3,211,419†	.....	.....	.....	3,211,419
Czechoslovakia	6,683	8,017	1,581	1,705	17,986
Denmark	3,200	.....	.....	.....	3,200
Finland	52,609	125,000	.....	.....	177,609
France	250,000	400,000	1,500,000*	.....	2,150,000
Greece	72,200	.....	.....	.....	72,200
Netherlands	9,600	20,000	25,000*	.....	54,600
Norway	8,418	.....	16	.....	8,434
U.S.S.R.	6,115,000	14,012,000	3,290.000*	.....	23,417,000
Yugoslavia	305,000	425,000	.....	170,000	900,000

* Includes prisoners of war. † Includes total dead, wounded and missing.

U. S. Armed Forces Personnel, 1934–51

Year	Army*	Air Force*	Navy	Marines	Coast Guard‡	Men†	Women
1934	137,584	.....	92,312	16,361	9,985	245,299	958
1935	138,569	.....	95,053	17,260	10,303	249,947	935
1936	166,724	.....	106,292	17,248	9,545	289,311	953
1937	178,733	.....	113,617	18,223	10,066	309,556	1,017
1938	184,126	.....	119,088	18,356	9,968	320,472	1,098
1939	188,565	.....	125,202	19,432	10,064	332,089	1,110
1940	267,767	.....	160,697	28,277	13,621	455,660	1,381
1941	1,460,998	.....	284,427	54,359	19,038	1,793,680	6,104
1942	3,074,184	.....	640,570	142,613	58,998	3,932,112	14,253
1943	6,993,102	.....	1,741,750	308,523	154,976	9,068,994	129,357
1944	7,992,868	.....	2,981,365	475,604	169,264	11,400,450	218,651
1945	8,266,373	.....	3,380,817	474,680	171,518	12,018,974	274,414
1946	1,889,690	.....	983,393	155 592	29,736	2,970,688	57,992
1947	989,664	.....	486,245	92 222	18,372	1,548,472	19,659
1948	552,239	387,730	405,789	83,609	19,929	1,415,216	14,151
1949	658,694	419,347	448,500	86,000	23,326	1,594,481	18,060
1950	593,167	411,277	381,538	74,279	23,193	1,438,206	22,055

* Prior to July 26, 1947, when the National Military Establishment was established, the Air Force was a part of the Army. † Not including the men in the Coast Guard during peacetime. ‡ From 1942 to and including 1945, the Coast Guard was part of the Navy; in peacetime it is attached to the Treasury Department.

NOTE: On June 30, 1951, the estimated strength of the Armed Forces was: Army, 1,552,000; Navy, 740,000; Air Force, 850,000; Marines, 204,000.

Casualties of U. S. Major Wars

Source: Department of Defense.

War	Branch of service	Numbers engaged	Battle deaths	Other deaths	Total deaths	Wounds not mortal	Total casualties[1]
Revolutionary War	Army	.....	4,044	.....	.....	6,004	.....
1775 to 1783	Navy	.....	342	.....	.....	114	.....
	Marines	.....	49	.....	.....	70	.....
	Total	.....	4,435	.....	.....	6,188	.....
War of 1812	Army	.....	1,950	.....	.....	4,000	.....
1812 to 1815	Navy	.....	265	.....	.....	439	.....
	Marines	.....	45	.....	.....	66	.....
	Total	.....	2,260	.....	.....	4,505	.....
Mexican War	Army	.....	1,721	11,550	13,271	4,102	17,373
1846 to 1848	Navy	.....	1	.....	.....	3	.....
	Marines	.....	11	.....	.....	47	.....
	Total	.....	1,733	.....	.....	4,152	.....
Civil War[2]	Army	.....	110,238	249,290	359,528	280,040	639,568
1861 to 1865	Navy	.....	2,112	2,411	4,523	1,710	6,233
	Marines	.....	64	312	376	144	520
	Total	.....	112,414	252,013	384,427	281,894	646,321
Spanish-American War	Army	280,564	345	2,565	2,910	1,512	4,422
1898	Navy	22,875	10	0	10	47	57
	Marines	3,321	6	0	6	21	27
	Total	306,760	361	2,565	2,926	1,580	4,506
World War I	Army	4,057,101	50,510	69,446	119,956	193,663	313,619
1917 to 1918	Navy	473,262	436	7,285	7,721	884	8,605
	Marines	78,827	2,457	787	3,244	7,714	10,958
	Total	4,609,190	53,403	77,815	130,921	202,261	333,182
World War II	Army[3]	10,420,000	237,049	68,957	306,006	571,822	877,828
1941 to 1945	Navy	4,424,557	36,488	23,618	60,106	32,754	92,860
	Marines	669,100	19,568	4,089	23,657	55,396	79,053
	Total	15,513,657	293,105	96,664	389,769	659,972	1,049,741

[1] Excludes captured or interned and missing in action who were subsequently returned to military control. [2] Union forces only. Totals should probably be somewhat larger as data on disposition of prisoners are far from complete. [3] Army data include Air Force. NOTE: All data are subject to revision. For wars before World War I, information represents best data from available records. However, due to incomplete records and possible differences in usage of terminology, reporting systems, etc., figures should be considered estimates. Leaders (.....) indicate that information is not available.

Definitions

COLONY: a company of people, purposely or otherwise, transplanted from their mother country and remaining subject to the jurisdiction of the parent state.

CROWN COLONY: a British Empire colony in which the crown retains some kind of control over legislation.

DOMINION: an autonomous community within the British Empire, equal in status to any other dominion, but united by a common allegiance to the crown.

PROTECTORATE: an area which is protected by a superior authority from domestic or foreign disturbance or dictation and shares in its own government.

MANDATE: order or commission granted by League of Nations (before its defunction) as mandator to a member nation.

SPHERE OF INFLUENCE: a territory within which the political influence or the interests of one nation are permitted by other nations to be more or less exclusive. Also loosely used to denote regions more or less under the control of a nation but not constituting a formally recognized protectorate or suzerainty.

SUZERAIN: a state that exercises political control over another state in relation to which it is sovereign.

TRUSTEESHIP: administration by a member of the United Nations of an area not yet ready for self-government.

Lincoln's Gettysburg Address

The Battle of Gettysburg, one of the most noted battles of the Civil War, was fought on July 1, 2, and 3, 1863. On November 19, 1863, the field was dedicated as a national cemetery by President Lincoln in a two-minute speech that was to become immortal. At the time of its delivery the speech was relegated to the inside pages of the papers, while a two-hour address by Edward Everett, the leading orator of the time, caught the headlines.

The following is the text of the address revised by President Lincoln from his own notes:

FOURSCORE and seven years ago our fathers brought forth on this continent a new nation conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead, who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The Monroe Doctrine

The Monroe Doctrine was announced in President James Monroe's message to Congress, during his second term on December 2, 1823 in part as follows:

"In the discussions to which this interest has given rise, and in the arrangements by which they may terminate, the occasion has been deemed proper for asserting as a principle in which rights and interests of the United States are involved, that the American continents, by the free and independent condition which they have assumed and maintain, are henceforth not to be considered as subjects for future colonization by any European power. . . . We owe it, therefore, to candor and to the amicable relations existing between the United States and those powers to declare that we should consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European power we have not interfered and shall not interfere. But with the governments who have declared their independence and maintain it, and whose independence we have, on great consideration and on just principles, acknowledged, we could not view any interposition for the purpose of oppressing them or controlling in any other manner their destiny by any European power in any other light than as the manifestation of an unfriendly disposition toward the United States."

Minority Presidents

Thirteen candidates have become President of the U. S. with a popular vote less than 50 per cent of the total vote cast. It should be noted, however, that in elections before 1872, presidential electors were not chosen by popular vote in all states. Adams' election in 1824 was by the House of Representatives, which chose him over Jackson, who had a plurality of both electoral and popular votes, but not a majority in the electoral college.

Besides Jackson in 1824, only two other candidates receiving the largest popular vote have failed to gain a majority in the electoral college—Samuel J. Tilden (D) in 1876 and Grover Cleveland (D) in 1888.

The "minority" Presidents follow:

Year	President	Electoral Pct.	Popular vote Pct.
1824	John Q. Adams	31.8	29.8
1844	James K. Polk (D)	61.8	49.3
1848	Zachary Taylor (W)	56.2	47.3
1856	James A. Buchanan (D)	58.7	45.3
1860	Abraham Lincoln (R)	59.4	39.9
1876	Rutherford B. Hayes (R)	50.1	47.9
1880	James A. Garfield (R)	57.9	48.3
1884	Grover Cleveland (D)	54.6	48.8
1888	Benjamin Harrison (R)	58.1	47.8
1892	Grover Cleveland (D)	62.4	46.0
1912	Woodrow Wilson (D)	81.9	41.8
1916	Woodrow Wilson (D)	52.1	49.3
1948	Harry S. Truman (D)	57.1	49.5

The Mayflower Compact

On September 6, 1620, the *Mayflower*, a sailing vessel of about 180 tons, started her memorable voyage from Plymouth, England with 100 or 102* pilgrims aboard, bound for Virginia to establish a private permanent colony in North America. Arriving at Provincetown, Mass., on November 11 (November 21, new style calendar), forty-one of the passengers signed the famous "Mayflower Compact" as the boat lay at anchor in that Cape Cod harbor. A small detail of the pilgrims, led by William Bradford, assigned to select a place for permanent settlement landed at what is now Plymouth, Mass., on December 21, N.S.

The text of the compact follows:

IN THE NAME OF GOD, Amen. We, whose names are underwritten, the Loyal Subjects of our dread Sovereign Lord, King *James*, by the Grace of God, of *Great Britain, France* and *Ireland*, King, *Defender of the Faith*, &,

Having undertaken for the Glory of God, and Advancement of the Christian Faith, and the Honour of our King and Country, a voyage to plant the first colony in the northern Parts of Virginia; do by these Presents, solemnly and mutually in the Presence of God and one of another, covenant and combine ourselves together into a civil Body Politick, for our better Ordering and Preservation, and Furtherance of the Ends aforesaid; And by Virtue hereof to enact, constitute, and frame, such just and equal Laws, Ordinances, Acts, Constitutions and Offices, from time to time, as shall be thought most meet and convenient for the General good of the Colony; unto which we promise all due Submission and Obedience.

In WITNESS whereof we have hereunto subscribed our names at *Cape Cod* the eleventh of *November*, in the Reign of our Sovereign Lord, King *James* of *England, France* and *Ireland*, the eighteenth, and of *Scotland* the fifty-fourth. *Anno Domini*, 1620

John Carver
Digery Priest
William Brewster
Edmund Margesson
John Alden
George Soule
James Chilton
Francis Cooke
Joses Fletcher
John Ridgate
Christopher Martin
William Mullins
Thomas English
John Howland
Stephen Hopkins
Edward Winslow
Gilbert Winslow
Miles Standish
Richard Bitteridge
Francis Eaton
John Tilly
John Billington
Thomas Tinker
Samuel Fuller
Richard Clark
John Allerton
Richard Warren
Edward Liester
William Bradford
Thomas Williams
Isaac Allerton
Peter Brown
John Turner
Edward Tilly
John Craxton
Thomas Rogers
John Goodman
Edward Fuller
Richard Gardiner
William White
Edward Doten

* Historians differ as to whether 100, 101, or 102 passengers were aboard.

The Early Congresses

At the urging of Massachusetts and Virginia, the First Continental Congress met in Philadelphia on September 5, 1774, and was attended by representatives of all the colonies except Georgia. Patrick Henry of Virginia declared: "The distinctions between Pennsylvanians, New Yorkers and New Englanders are no more. I am not a Virginian but an American." This Congress, which adjourned October 26, 1774, passed intercolonial resolutions calling for extensive boycott by the colonies against British trade.

The following year, most of the delegates from the colonies were chosen by popular election to attend the Second Continental Congress, which assembled in Philadelphia on May 10. As war had already begun between the colonies and England, the chief problems before the Congress were the procuring of military supplies, the establishment of an army and proper defenses, the issuing of continental bills of credit, etc. On June 15, 1775, George Washington was elected to command the Continental army. Congress adjourned Dec. 12, 1776.

Other Continental Congresses were held in Baltimore (1776–77), Philadelphia (1777), Lancaster, Pa. (1777), York, Pa. (1777–78) and Philadelphia (1778–81).

In 1781, the Articles of Confederation, although establishing a league of the thirteen states rather than a strong central government, provided for the continuance of Congress. Known thereafter as the Congress of the Confederation, it held sessions in Philadelphia (1781–83), Princeton, N. J. (1783), Annapolis, Md. (1783–84) and Trenton, N. J. (1784). Five sessions were held in New York City between the years 1785 and 1789.

The Congress of the United States, established by the ratification of the Constitution, held its first meeting on Mar. 4, 1789, in N. Y. C. Several sessions of Congress were held in Philadelphia, and the first meeting in Washington D. C., was on Nov. 17, 1800.

Presidents of the Continental Congresses

Name	Elected	Born	Died
Peyton Randolph, Va.	Sept. 5, 1774	c.1721	1775
Henry Middleton, S. C.	Oct. 22, 1774	1717	1784
Peyton Randolph, Va.	May 10, 1775	c.1721	1775
John Hancock, Mass.	May 24, 1775	1737	1793
Henry Laurens, S. C.	Nov. 1, 1777	1724	1792
John Jay, N. Y.	Dec. 10, 1778	1745	1829
Samuel Huntington, Conn.	Sept. 28, 1779	1731	1796
Thomas McKean, Del.	July 10, 1781	1734	1817
John Hanson, Md.	Nov. 5, 1781	1715	1783
Elias Boudinot, N. J.	Nov. 4, 1782	1740	1821
Thomas Mifflin, Pa.	Nov. 3, 1783	1744	1800
Richard Henry Lee, Va.	Nov. 30, 1784	1732	1794
John Hancock, Mass.*	Nov. 23, 1785	1737	1793
Nathaniel Gorham, Mass.	June 6, 1786	1738	1796
Arthur St. Clair, Pa.	Feb. 2, 1787	1734	1818
Cyrus Griffin, Va.	Jan. 22, 1788	1748	1810

* Resigned May 29, 1786, never having served, because of continued illness.

The Star-Spangled Banner

Francis Scott Key, 1814

O say, can you see, by the dawn's early light,
What so proudly we hail'd at the twilight's last gleaming?
Whose broad stripes and bright stars, thro' the perilous fight,
O'er the ramparts we watch'd, were so gallantly streaming?
And the rockets' red glare, the bombs bursting in air,
Gave proof thro' the night that our flag was still there.
O say, does that star-spangled banner yet wave
O'er the land of the free and the home of the brave?

On the shore dimly seen thro' the mists of the deep,
Where the foe's haughty host in dread silence reposes,
What is that which the breeze, o'er the towering steep,
As it fitfully blows, half conceals, half discloses?
Now it catches the gleam of the morning's first beam,
In full glory reflected, now shines on the stream:
'T is the star-spangled banner: O, long may it wave
O'er the land of the free and the home of the brave!

And where is that band who so vauntingly swore
That the havoc of war and the battle's confusion,
A home and a country should leave us no more?
Their blood has wash'd out their foul footsteps' pollution.
No refuge could save the hireling and slave
From the terror of flight or the gloom of the grave:
And the star-spangled banner in triumph doth wave
O'er the land of the free and the home of the brave.

O thus be it ever when free-men shall stand
Between their lov'd home and the war's desolation;
Blest with vict'ry and peace, may the heav'n-rescued land
Praise the Pow'r that hath made and preserv'd us a nation!
Then conquer we must, when our cause it is just,
And this be our motto: "In God is our trust!"
And the star-spangled banner in triumph shall wave
O'er the land of the free and the home of the brave!

ON SEPTEMBER 13, 1814, Francis Scott Key visited the British fleet in Chesapeake Bay to secure the release of Dr. William Beanes, who had been captured after the burning of Washington, D. C. The release was secured, but Key was detained on ship overnight during the shelling of Fort McHenry, one of the forts defending Baltimore. In the morning, he was so delighted to see the American flag still flying over the fort that he began a poem to commemorate the occasion. Entitled "The Star-Spangled Banner," the poem soon attained wide popularity as sung to the tune "Anacreon in Heaven." The origin of this tune is obscure, but it may have been written by John Stafford Smith, a British composer born in 1750. "The Star-Spangled Banner" was officially made the National Anthem by Congress in 1931, although already adopted as such by the Army and Navy.

History of the Flag

Source: Encyclopaedia Britannica.

THE FIRST OFFICIAL AMERICAN flag, the Continental or Grand Union flag, was displayed on Prospect Hill, Jan. 1, 1776, in the American lines besieging Boston. It had thirteen alternate red and white stripes, with the British Union Jack in the upper left corner.

On June 14, 1777, the Continental Congress adopted the design for a new flag, which actually was the Continental flag with the red cross of St. George and the white cross of St. Andrew replaced on the blue field by thirteen stars, one for each state. No rule was made as to the arrangement of the stars, and while they were usually shown in a circle, there were various other designs. It is uncertain when the new flag was first flown, but its first official announcement is believed to have been on Sept. 3, 1777.

The first public assertion that Betsy Ross made the first Stars and Stripes appeared in a paper read before the Historical Society of Pennsylvania on March 14, 1870, by William J. Canby, a grandson. However, Mr. Canby on later investigation found no official documents of any action by Congress on the flag before June 14, 1777. Betsy Ross' own story, according to her daughter, was that Washington, Robert Morris and George Ross, as representatives of Congress, visited her in Philadelphia in June, 1776, showing her a rough draft of the flag and asking her if she could make one. However, the only actual record of the manufacture of flags by Betsy Ross is a voucher in Harrisburg, Pa., for 14 pounds and some shillings for flags for the Pennsylvania navy.

On Jan. 13, 1794, Congress voted to add two stars and two stripes to the flag in recognition of the admission of Vermont and Kentucky to the Union. By 1818, there were twenty states in the Union, and as it was obvious that the flag would soon become unwieldly, Congress voted April 18 to return to the original thirteen stripes and to indicate the admission of a new state simply by the addition of a star the following July 4. The last two stars were added July 4, 1912, for New Mexico and Arizona.

The first Confederate flag, adopted in 1861 by the Confederate convention in Montgomery, Ala., was called the Stars and Bars; but because of its similarity in colors to the American flag, there was much confusion in the Battle of Bull Run. To remedy this situation, Gen. G. T. Beauregard suggested a battle flag, which was used by the Southern armies throughout the war. The flag consisted of a red field on which was placed a blue cross of St. Andrew separated from the field by a white fillet and adorned with thirteen* white stars for the Confederate states. In May, 1863, at Richmond, an official flag was adopted by the Confederate Congress. This flag was white and twice as long as wide; the union, two-thirds the width of the flag, contained the battle flag designed for Gen. Beauregard. A broad transverse stripe of red was added Feb. 4, 1865, so that the flag might not be mistaken for a signal of truce.

* 11 states formally seceded, and unofficial groups in Kentucky and Missouri adopted ordinances of secession. On this basis, these two states were admitted to the Confederacy, although the official state governments remained in the Union

Flag Etiquette

(Public Law 829—77th Congress)

JOINT RESOLUTION

To amend Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America."

Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, That Public Law Numbered 623, approved June 22, 1942, entitled "Joint resolution to codify and emphasize existing rules and customs pertaining to the display and use of the flag of the United States of America," be, and the same is hereby amended to read as follows:

That the following codification of existing rules and customs pertaining to the display and use of the flag of the United States of America be, and it is hereby, established for the use of such civilians or civilian groups or organizations as may not be required to conform with regulations promulgated by one or more executive departments of the Government of the United States.

SEC. 2. (*a*) It is the universal custom to display the flag only from sunrise to sunset on buildings and on stationary flagstaffs in the open. However, the flag may be displayed at night upon special occasions when it is desired to produce a patriotic effect.

(*b*) The flag should be hoisted briskly and lowered ceremoniously.

(*c*) The flag should not be displayed on days when the weather is inclement.

(*d*) The flag should be displayed on all days when the weather permits, especially on New Year's Day, January 1; Inauguration Day, January 20; Lincoln's Birthday, February 12; Washington's Birthday, Feb-

ruary 22; Army Day*, April 6; Easter Sunday (variable); Mother's Day, second Sunday in May; Memorial Day (half-staff until noon), May 30; Flag Day, June 14; Independence Day, July 4; Labor Day, first Monday in September; Constitution Day, September 17; Columbus Day, October 12; Navy Day*, October 27; Armistice Day, November 11; Thanksgiving Day, fourth Thursday in November; Christmas Day, December 25; such other days as may be proclaimed by the President of the United States; the birthdays of States (dates of admission); and on State holidays.

(*e*) The flag should be displayed daily, weather permitting, on or near the main administration building of every public institution.

(*f*) The flag should be displayed in or near every polling place on election days.

(*g*) The flag should be displayed during school days in or near every schoolhouse.

SEC. 3. That the flag, when carried in a procession with another flag or flags, should be either on the marching right; that is, the flag's own right, or, if there is a line of other flags, in front of the center of that line.

(*a*) The flag should not be displayed on a float in a parade except from a staff, or as provided in subsection (*i*).

(*b*) The flag should not be draped over the hood, top, sides, or back of a vehicle or of a railroad train or a boat. When the flag is displayed on a motorcar, the staff shall be fixed firmly to the chassis or clamped to the radiator cap.

(*c*) No other flag or pennant should be placed above or, if on the same level, to the right of the flag of the United States of America, except during church services conducted by naval chaplains at sea, when the church pennant may be flown above the flag during church services for the personnel of the Navy.

(*d*) The flag of the United States of America, when it is displayed with another flag against a wall from crossed staffs, should be on the right, the flag's own right, and its staff should be in front of the staff of the other flag.

(*e*) The flag of the United States of America should be at the center and at the highest point of the group when a number of flags of States or localities or pennants of societies are grouped and displayed from staffs.

(*f*) When flags of States, cities, or localities, or pennants of societies are flown on the same halyard with the flag of the United States, the latter should always be at the peak. When the flags are flown from adjacent staffs, the flag of the United States should be hoisted first and lowered last. No such flag or pennant may be placed above the flag of the United States or to the right of the flag of the United States.

(*g*) When flags of two or more nations are displayed, they are to be flown from separate staffs of the same height. The flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

(*h*) When the flag of the United States is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of a building, the union of the flag should be placed at the peak of the staff unless the flag is at half-staff. When the flag is suspended over a sidewalk from a rope extending from a house to a pole at the edge of the sidewalk, the flag should be hoisted out, union first, from the building.

(*i*) When the flag is displayed otherwise than by being flown from a staff, it should be displayed flat, whether indoors or out, or so suspended that its folds fall as free as though the flag were staffed.

(*j*) When the flag is displayed over the middle of the street, it should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

(*k*) When used on a speaker's platform, the flag, if displayed flat, should be displayed above and behind the speaker. When displayed from a staff in a church or public auditorium, if it is displayed in the chancel of a church, or on the speaker's platform in a public auditorium, the flag should occupy the position of honor and be placed at the clergyman's or speaker's right as he faces the congregation or audience. Any other flag so displayed in the chancel or on the platform should be placed at the clergyman's or speaker's left as he faces the congregation or audience. But when the flag is displayed from a staff in a church or public auditorium elsewhere than in the chancel or on the platform it shall be placed in the position of honor at the right of the congregation or audience as they face the chancel or platform. Any other flag so displayed should be placed on the left of the congregation or audience as they face the chancel or platform.

(*l*) The flag should form a distinctive feature of the ceremony of unveiling a statue or monument, but it should never be used as the covering for the statue or monument.

(*m*) The flag, when flown at half-staff, should be first hoisted to the peak for an instant and then lowered to the half-staff position. The flag should be again raised to the peak before it is lowered for the day. By "half-staff" is meant lowering the flag to one-half the distance between the top and bottom of the staff. Crepe streamers may be affixed to spearheads or flag-staffs in a parade only by order of the President of the United States.

* In 1949, Army Day and Navy Day were abandoned; since then, Armed Forces Day has been celebrated the third Saturday of May.

(*n*) When the flag is used to cover a casket, it should be so placed that the union is at the head and over the left shoulder. The flag should not be lowered into the grave or allowed to touch the ground.

SEC. 4. That no disrespect should be shown to the flag of the United States of America, the flag should not be dipped to any person or thing. Regimental colors, State flags, and organization or institutional flags are to be dipped as a mark of honor.

(*a*) The flag should never be displayed with the union down save as a signal of dire distress.

(*b*) The flag should never touch anything beneath it, such as the ground, the floor, water, or merchandise.

(*c*) The flag should never be carried flat or horizontally, but always aloft and free.

(*d*) The flag should never be used as drapery of any sort whatsoever, never festooned, drawn back, nor up, in folds, but always allowed to fall free. Bunting of blue, white, and red, always arranged with the blue above, the white in the middle, and the red below, should be used for covering a speaker's desk, draping the front of a platform, and for decoration in general.

(*e*) The flag should never be fastened, displayed, used, or stored in such a manner as will permit it to be easily torn, soiled, or damaged in any way.

(*f*) The flag should never be used as a covering for a ceiling.

(*g*) The flag should never have placed upon it, nor on any part of it, nor attached to it any mark, insignia, letter, word, figure, design, picture, or drawing of any nature.

(*h*) The flag should never be used as a receptacle for receiving, holding, carrying, or delivering anything.

(*i*) The flag should never be used for advertising purposes in any manner whatsoever. It should not be embroidered on such articles as cushions or handkerchiefs and the like, printed or otherwise impressed on paper napkins or boxes or anything that is designed for temporary use and discard; or used as any portion of a costume or athletic uniform. Advertising signs should not be fastened to a staff or halyard from which the flag is flown.

(*j*) The flag, when it is in such condition that it is no longer a fitting emblem for display, should be destroyed in a dignified way, preferably by burning.

SEC. 5. That during the ceremony of hoisting or lowering the flag or when the flag is passing in a parade or in a review, all persons present should face the flag, stand at attention, and salute. Those present in uniform should render the military salute. When not in uniform, men should remove the headdress with the right hand holding it at the left shoulder, the hand being over the heart. Men without hats should salute in the same manner. Aliens should stand at attention. Women should salute by placing the right hand over the heart. The salute to the flag in the moving column should be rendered at the moment the flag passes.

SEC. 6. That when the national anthem is played and the flag is not displayed, all present should stand and face toward the music. Those in uniform should salute at the first note of the anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the flag is displayed, all present should face the flag and salute.

SEC. 7. That the pledge of allegiance† to the flag, "I pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one Nation indivisible, with liberty and justice for all," be rendered by standing with the right hand over the heart. However, civilians will always show full respect to the flag when the pledge is given by merely standing at attention, men removing the headdress. Persons in uniform shall render the military salute.

SEC. 8. Any rule or custom pertaining to the display of the flag of the United States of America, set forth herein, may be altered, modified, or repealed, or additional rules with respect thereto may be prescribed, by the Commander-in-Chief of the Army and Navy of the United States, whenever he deems it to be appropriate or desirable; and any such alteration or additional rule shall be set forth in a proclamation.

Approved, December 22, 1942.

The American's Creed*

"I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it; to support its Constitution; to obey its laws; to respect its flag, and to defend it against all enemies."

* William Tyler Page, Clerk of the United States House of Representatives, wrote "The American's Creed" in 1917. It was accepted by the House of Representatives on behalf of the American people on April 3, 1918.

† Written by Francis Bellamy in August, 1892, of the staff of *The Youth's Companion* in Boston, at the suggestion of James B. Upham, one of the editors.

AMERICAN ECONOMY

★

ESSENTIAL FACTS *about* BUSINESS • AGRICULTURE LABOR • SOCIAL SECURITY • TAXES • WORLD TRADE

by

THE RESEARCH INSTITUTE of AMERICA, Inc.

Outstanding Authority in the Analysis of Business Facts, Economic Trends and Government Action for over 30,000 Business and Professional Firms

ECONOMICS IS MORE THAN THE favorite pastime of a handful of college professors and government officials. It is the sum total of the plants and facilities which help make the goods we buy and use; it includes the service establishment, wholesale house and the corner grocer which help bring the goods and services closer to the ultimate customer. And finally, it includes all of us, 154 million Americans who help the American economy produce and at the same time, as consumers, share its products.

This portion of the *Information Please Almanac* presents essential facts about our unprecedented standard of living in peace, our tremendous potential as the arsenal of the Free World in war, should it ever again become necessary. The statistical tables afford a view of where we stand and how we have come here; imagination must tell us to what new highs the steady progress will eventually carry us.

Our personal fortunes are inextricably tied to what happens in these economic areas. Useful as this section may be as a reference source to answer specific questions, it is intended to do more. Exploring it, page by page, should give the reader an understanding of what the American economy is and what makes it tick.

Statistical Section

Basic facts on American business (starting on the next page) gives a bird's-eye view of American production and income. It shows the relative importance of various industries and trades and the extent to which we have been able to combine rearmament with high civilian output.

What industry makes (starting at page 260) takes a closer look at our industrial output. It follows the steady rise in industrial production since Civil War days, the changes which the war and postwar periods have brought about, and highlights the problems we face in starting a new rearmament effort so short a time after the end of the last world conflict.

What farmers produce (starting at page 266) proves that we are the leading nation in agricultural output as well as in the industrial field, and shows the reasons why.

What commerce distributes (starting at page 269) deals with the wholesale and retail channels through which industry's products flow to the final consumer.

What services contribute (starting at page 272) shows the important place which the hundreds of thousands of small service establishments play in providing us with daily conveniences, the importance of banking and stock exchanges to the financing of our economic effort, and the growing part which advertising plays in bringing buyer and seller together.

What government does and costs (starting at page 276) contains some vital facts on the ever-growing role of government in our everyday lives.

How we work (starting at page 279) deals with all of us: how we are employed, how long we work and what we accomplish.

What we earn and spend—what living costs us (starting at page 283) traces the steady rise in our incomes which is impressive indeed—even after allowing for the higher cost of living. It shows how prices rose to their high 1948 level, the first postwar decline, and the beginning of a new climb under the pressure of mounting military demand.

What we own (starting at page 290) and *what we owe* (starting at page 292) take inventory of the national assets and liabilities in which all of us share.

BASIC FACTS ON AMERICAN BUSINESS

A good measure of our economic health is the Gross National Product which shows the total expenditure by individuals, business and government for goods and services produced by the economy. It more than doubled during the recent war and, contrary to many expectations, even exceeded that unprecedented level in the early postwar years. Private investment and personal consumption quickly took up most of the slack created by the drop in government expenditures for war.

Our national income also continues at more than twice its size during the boom year of 1929. A drop in government payments and a smaller decline in manufacturing, which were inevitable after the end of the war, were largely made up by increases in wholesale and retail trades, services, agriculture, communications and public utilities.

These broad over-all figures obscure, of course, many individual differences. Billion dollar companies and other large concerns account for two-thirds of our output though there are well over ten small businesses for every one that is large. Our national income varies greatly among different states. The contribution which each region and industry makes to the national total has been undergoing significant changes.

Worsening international relations, underscored by the outbreak of hostilities in Korea in June 1950, presented us with the heavy added responsibility of a new rearmament effort. Contrary to 1939–41, there was a little slack to take up the burden of the new military demand. By 1951, it had become clear that, temporarily at least, some curtailment of civilian production was inevitable.

Gross National Product or Expenditure

(in millions of dollars)

Source: U. S. Department of Commerce.

Item	1929	1933	1941	1945	1948	1949	1950	1951*
Gross national product	103,828	55,760	126,417	215,210	259,045	257,348	282,630	322,050
Personal consumption expenditures	78,761	46,346	82,255	123,070	177,890	180,174	193,568	204,800
Durable goods	9,362	3,503	9,750	8,472	22,883	23,899	29,157	23,700
Nondurable goods	37,742	22,254	43,960	74,836	100,889	98,720	102,310	110,500
Services	31,657	20,589	28,545	39,721	54,118	57,555	62,101	65,700
Gross private domestic investment	15,824	1,306	18,334	10,733	42,693	33,047	48,867	61,550
New construction	7,824	1,142	6,784	3,934	17,716	17,250	22,068	23,100
Producers' durable equipment	6,438	1,783	7,676	7,545	19,948	19,010	22,461	25,600
Change in business inventories	1,562	−1,619	3,874	−746	5,029	−3,213	4,338	11,850
Net foreign investment	771	150	1,124	−1,438	1,864	528	−2,304	−1,800
Government purchases	8,472	7,958	24,704	82,836	36,598	43,599	42,499	55,450
Federal	1,311	2,018	16,923	74,976	21,022	25,473	22,831	35,200
War	1,344	2,022	13,794	75,923	21,653	25,868	23,056	.....
Nonwar			3,173	1,031				
Less: Government sales	33	4	44	2,158	631	395	225	.....
State and local	7,161	5,940	7,781	8,010	15,575	18,126	19,668	21,250

* First half at annual rate, seasonally adjusted.

National Income by Industrial Origin

(in millions of dollars)

Source: U. S. Department of Commerce.

Industry	1929	1933	1941	1944	1946	1948	1949	1950	1950 % of total
All industries, total	87,355	39,584	103,834	183,838	180,286	233,469	216,716	238,963	100.00
Agriculture, forestry, and fisheries	8,002	3,521	8,880	14,830	18,251	21,829	17,033	17,657	7.39
Farms	7,791	3,402	8,655	14,486	17,821	21,310	16,542	17,131	7.17
Agricultural and similar service establishments	119	87	148	221	249	314	307	322	.14
Forestry	26	11	14	31	48	56	52	55	.02
Fisheries	66	21	63	92	133	149	132	149	.06
Mining	2,097	662	2,341	2,950	3,071	5,445	4,589	5,038	2.11
Metal mining	478	41	513	417	324	686	610	703	.29
Anthracite mining	285	130	165	233	286	343	267	283	.12
Bituminous and other soft coal	652	255	809	1,271	1,241	2,112	1,551	1,793	.75
Crude petroleum and natural gas	486	195	654	830	925	1,870	1,703	1,790	.75
Nonmetallic mining	196	41	200	224	295	434	452	469	.20
Contract construction	3,691	735	4,370	4,375	6,651	10,551	10,584	12,204	5.11

Industry	1929	1933	1941	1944	1946	1948	1949	1950	1950 % of total
Manufacturing	22,012	7,563	32,897	60,456	48,905	67,215	63,157	74,075	31.00
Food and kindred products	2,157	1,335	2,683	4,992	5,573	6,637	6,599	6,635	2.77
Tobacco manufactures	258	142	215	289	332	429	467	528	.22
Textile-mill products	1,797	697	2,036	2,956	4,015	5,229	4,120	4,592	1.92
Apparel, other finished fabrics	1,240	532	1,429	2,598	3,242	3,441	3,285	3,297	1.37
Lumber and timber basic products	850	122	887	1,158	1,433	2,204	1,733	2,220	.92
Furniture and finished lumber	678	183	765	1,029	1,378	1,762	1,608	1,881	.78
Paper and allied products	563	290	1,034	1,352	1,709	2,377	2,192	2,656	1.11
Printing and publishing	1,580	790	1,359	2,045	2,724	3,277	3,366	3,563	1.49
Chemicals and allied products	1,136	690	1,941	3,399	3,337	4,383	4,444	5,026	2.10
Products of petroleum and coal	993	17	833	1,360	1,679	3,632	2,959	3,391	1.41
Rubber products	356	103	485	991	1,090	1,083	989	1,002	.41
Leather and leather products	601	270	614	865	1,071	1,213	1,088	1,133	.47
Stone, clay and glass products	799	208	1,072	1,137	1,561	2,154	2,092	2,691	1.12
Iron and steel and products	2,978	682	5,048	9,081	5,588	8,713	7,783	10,377	4.34
Nonferrous metals and products	767	155	1,201	1,942	1,748	2,079	1,954	2,203	.92
Machinery (except electrical)	1,903	426	3,850	6,000	4,829	7,115	6,324	7,352	3.07
Electrical machinery	1,048	276	1,915	3,732	2,391	3,661	3,484	4,790	2.00
Transportation equipment, except autos	317	69	2,276	12,494	1,703	1,874	1,912	2,010	.94
Automobiles and auto equipment	1,394	384	2,364	1,413	1,920	4,132	4,949	6,653	2.78
Miscellaneous	597	192	890	1,623	1,582	1,820	1,809	2,075	.86
Wholesale and retail trade	13,090	5,375	15,903	25,137	34,137	42,192	41,707	43,269	18.10
Wholesale trade	3,955	1,631	4,795	6,995	9,512	12,611	12,287	12,254	5.12
Retail trade and auto services	9,135	3,744	11,127	18,142	24,625	29,581	29,420	31,015	12.98
Finance, insurance and real estate	13,098	5,681	9,583	13,088	14,696	17,780	18,439	20,251	8.47
Banking	1,960	493	1,028	1,667	2,200	2,444	2,599	2,827	1.18
Security and commodity brokers, dealers and exchanges	644	256	91	215	281	232	180	250	.15
Finance, n.e.c.	195	—9	206	271	341	549	589	599	.25
Insurance carriers	788	514	843	1,022	1,083	1,753	1,947	2,134	.89
Insurance agents and combination offices	533	367	553	692	968	1,219	1,238	1,390	.58
Real estate	8,978	4,060	6,748	9,221	9,823	11,583	11,886	12,951	5.42
Transportation	6,562	2,958	6,180	11,197	10,182	12,641	11,918	13,236	5.54
Railroads	4,600	1,849	3,778	6,954	5,472	7,161	6,426	7,199	3.01
Local railways and bus lines	592	331	329	571	601	565	580	559	.23
Highway passenger transportation	231	118	251	676	785	794	745	736	.31
Highway freight transportation	482	356	906	1,305	1,683	2,240	2,296	2,794	1.17
Water transportation	267	153	437	858	828	830	782	790	.33
Air transportation (common carriers)	—3	10	77	177	217	302	342	367	.15
Pipe-line transportation	130	47	145	147	128	196	199	207	.09
Services allied to transportation	263	94	266	509	478	553	548	584	.25
Communications and public utilities	2,878	2,000	3,313	4,100	4,850	5,939	6,652	7,245	3.03
Telephone and telegraph	1,130	692	1,135	1,676	1,987	2,471	2,695	2,980	1.25
Radio broadcasting	28	14	106	177	207	252	265	311	.13
Utilities: electric and gas	1,640	1,237	2,002	2,167	2,569	3,109	3,573	3,832	1.60
Local public services, n.e.c.	80	57	70	80	87	107	119	122	.05
Services	10,168	5,447	9,709	13,268	16,614	19,821	20,395	22,009	9.21
Hotels and lodging places	577	193	520	914	1,180	1,215	1,211	1,225	.51
Personal services	1,220	667	1,320	1,931	2,452	2,573	2,509	2,594	1.09
Private households	3,117	1,177	2,076	2,220	2,591	3,369	3,624	4,272	1.79
Commercial and trade schools and employment agencies	49	15	62	147	112	169	189	211	.09
Business services, n.e.c.	564	332	753	1,053	1,481	1,896	1,890	2,052	.86
Misc. repair services and hand trades	284	175	389	683	614	817	779	813	.34
Motion pictures	432	209	497	871	1,116	904	908	874	.36
Amusement and recreation, except motion pictures	371	152	338	453	721	723	731	741	.31
Medical and health services	1,522	937	1,587	2,315	2,900	3,746	3,956	4,314	1.81
Legal services	689	561	763	892	1,165	1,457	1,497	1,583	.66
Engineering, other professional, n.e.c.	243	113	333	373	554	756	766	856	.36
Educational services, n.e.c.	473	400	471	539	690	983	1,053	1,119	.47
Religious organizations	355	289	300	341	373	439	478	511	.21
Nonprofit organizations, n.e.c.	272	227	300	536	665	774	804	844	.35
Government and government enterprises	5,114	5,349	10,479	34,211	22,647	19,609	21,804	23,434	9.81
Federal—general government	900	1,187	5,046	27,905	14,741	8,922	9,979	10,783	4.51
Federal—government enterprises	581	485	788	1,083	1,404	1,618	1,790	1,891	.79
State and local—general government	3,456	3,531	4,368	4,883	6,080	8,517	9,445	10,143	4.25
State and local—government enterprises	177	146	277	340	422	552	590	617	.26
Rest of the world	643	293	231	226	282	447	458	545	.23

Number of Firms in Operation by Industry and Size of Firm, March 31, 1948

(in thousands)

Source: U. S. Department of Commerce.

Industry	All size classes	Number of firms with employees numbering—							
		0–3	4–7	8–19	20–49	50–99	100–499	500–999	1,000 or more
All industries	3,966.8	2,955.3	506.0	309.8	121.4	39.3	28.7	3.3	3.1
Mining and quarrying	34.4	18.1	5.9	5.4	2.7	1.1	1.0	.1	.1
Contract construction	312.4	210.5	52.1	32.8	11.6	3.3	1.8	.1	.1
Manufacturing	329.3	146.6	52.1	56.8	37.9	16.8	15.3	2.0	1.8
Food and kindred products	36.1	12.5	7.3	8.0	4.6	1.8	1.6	.2	.1
Textiles and textile products	43.5	10.9	5.7	9.1	9.2	4.3	3.6	.4	.3
Leather and leather products	6.7	2.4	.8	1.1	1.0	.6	.7	.1	*
Lumber and lumber products	84.4	48.8	13.1	12.4	5.9	2.3	1.7	.1	.1
Paper and allied products	4.2	1.1	.4	.7	.8	.5	.6	.1	.1
Printing and publishing	45.5	26.9	7.3	5.9	3.1	1.2	.9	.1	.1
Chemicals and allied products	11.7	4.7	1.9	2.2	1.4	.6	.6	.1	.1
Rubber products	1.5	.8	.1	.2	.1	.1	.1	*	*
Stone, clay and glass products	12.5	5.6	2.4	2.1	1.2	.5	.5	.1	.1
Metals and metal products	58.6	20.0	9.4	11.1	8.2	4.1	4.4	.7	.8
Other manufacturing †	24.5	12.9	3.7	3.9	2.2	.9	.7	.1	.1
Transportation, communication and other utilities	186.5	143.0	19.1	13.6	6.0	2.1	1.9	.3	.4
Wholesale trade	201.4	108.3	42.3	32.6	12.8	3.4	1.8	.1	.1
Retail trade	1,704.2	1,332.3	224.3	170.3	29.3	6.2	3.1	.3	.3
General merchandise	78.8	59.0	11.1	5.2	2.0	.6	.7	.1	.2
Food and liquor	492.8	434.3	40.8	13.2	3.1	.7	.5	.1	.1
Automotive	77.9	40.6	15.1	14.9	6.0	1.1	.2	*	*
Apparel and accessories	95.4	68.4	14.3	8.4	2.8	.8	.5	*	*
Eating and drinking places	324.9	222.6	62.4	31.1	7.0	1.3	.5	*	*
Filling stations	229.3	211.2	14.6	3.1	.4	.1	*	*	*
Other retail trade	405.1	296.1	66.0	32.5	8.0	1.6	.7	*	*
Finance, insurance and real estate	345.8	285.0	33.0	18.2	5.9	1.9	1.4	.2	.1
Service industries	852.8	711.5	77.1	42.1	15.1	4.4	2.4	.2	.1
Hotels and other lodging places	78.2	62.8	7.5	4.5	1.8	.8	.7	.1	*
Personal services	428.2	382.0	26.6	11.8	5.0	1.8	.8	*	*
Business services	80.7	57.8	11.6	7.4	2.7	.7	.4	*	*
Automobile repair	95.4	75.7	13.3	5.3	.9	.1	*	*	*
Miscellaneous repair	104.6	94.4	6.7	2.8	.6	.1	*	*	*
Motion pictures	13.2	4.3	3.1	3.7	1.5	.4	.2	*	*
Other amusements	52.4	34.4	8.4	6.5	2.5	.5	.2	*	*

* Less than 50 firms. † Includes tobacco and miscellaneous manufactures.

Current Assets and Liabilities of All U. S. Corporations

(in billions of dollars)

Source: U. S. Securities and Exchange Commission

	1939	1945	1947	1949	1950
Total current assets:	54.5	97.4	119.9	128.6	150.5
Cash on hand & in banks	10.8	21.7	24.1	25.9	26.9
U. S. Govt. securities	2.2	21.1	13.8	16.3	19.9
Notes & accounts receivable	22.1	25.9	36.4	40.3	50.0
Inventories	18.0	26.3	43.9	44.6	51.9
Other	1.4	2.4	1.6	1.4	1.7
Total current liabilities:	30.0	45.8	59.3	58.5	74.7
Notes & accounts payable	21.9	25.7	35.6	35.6	44.5
Federal income tax	1.2	10.4	10.6	9.8	15.5
Other	6.9	9.7	13.1	13.1	14.7
Net working capital	24.5	51.6	60.6	70.1	75.8
Ratio of assets per dollar of liabilities	1.8	2.1	2.0	2.2	2.0

Number of Corporations in the U. S.

Source: U. S. Treasury Department.

Year	Active corporation	Inactive corporation
1930	463,036	55,700
1931	459,704	56,700
1932	451,884	56,752
1933	446,842	57,238
1934	469,804	59,094
1935	477,113	56,518
1936	478,857	51,922
1937	477,838	51,259
1938	471,032	49,469
1939	469,617	46,343
1940	473,042	43,741
1941	468,906	40,160
1942	442,665	37,012
1943	420,485	35,268
1944	412,467	34,329
1945	421,125	33,335
1946	491,152	35,211
1947	551,807	35,876
1948, preliminary	594,243	36,427

Regional Economic Differences

Source: U. S. Depts. of Commerce and Labor and *Sales Management*, American Telephone and Telegraph Co. and Broadcast Measurement Bureau.

State	Value added by mfg. ($ millions, 1949)*	Est. retail sales† ($ millions, 1950)	Income received per capita, 1950	% increase per capita income received 1940–50	Manufacturing employment (in thousands, 1949)*	Per cent of families with telephones, Jan., 1951	Per cent of homes with radios, 1949
New England	6,299	9,161	.....	.....	1,323	..	..
Maine	407	774	1,161	+133	102	64	95
New Hampshire	310	495	1,282	+129	77	66	97
Vermont	151	342	1,184	+127	34	64	96
Massachusetts	3,194	4,690	1,600	+109	650	77	99
Rhode Island	564	738	1,561	+118	125	68	99
Connecticut	1,674	2,122	1,766	+114	337	86	99
Middle Atlantic	20,676	30,913	.....	.....	3,737	..	..
New York	9,528	16,065	1,864	+116	1,704	73	97
New Jersey	4,206	4,948	1,689	+110	685	74	97
Pennsylvania	6,942	9,900	1,523	+143	1,348	69	96
East North Central	24,502	30,528	.....	.....	4,009	..	..
Ohio	6,413	7,615	1,582	+146	1,079	74	97
Indiana	3,059	3,691	1,451	+168	506	68	97
Illinois	6,899	9,101	1,752	+141	1,104	70	98
Michigan	5,770	6,769	1,583	+144	922	78	98
Wisconsin	2,361	3,353	1,431	+177	398	71	98
West North Central	4,395	13,792	.....	.....	778	..	..
Minnesota	1,082	2,911	1,332	+161	178	74	98
Iowa	796	2,652	1,417	+190	140	79	97
Missouri	1,731	3,832	1,401	+177	318	62	94
North Dakota	67	649	1,298	+249	16	55	97
South Dakota		645	1,308	+245		64	96
Nebraska	220	1,362	1,467	+238	45	74	96
Kansas	500	1,740	1,338	+216	82	74	95
South Atlantic	7,075	16,257	.....	.....	1,502	..	..
Delaware	230	377	1,909	+114	37	75	95
Maryland	1,203	2,052	1,547	+119	210	61	96
District of Columbia	123	1,301	1,986	+83	17	93	97
Virginia	1,085	2,301	1,158	+160	213	46	90
West Virginia	720	1,224	1,049	+164	121	43	92
North Carolina	1,628	2,624	951	+201	366	33	87
South Carolina	719	1,258	831	+190	188	29	83
Georgia	1,001	2,311	969	+207	268	40	83
Florida	365	2,810	1,210	+159	84	41	87
East South Central	2,839	6,807	.....	.....	594	..	..
Kentucky	800	1,780	911	+195	124	39	89
Tennessee	981	2,214	962	+204	213	46	87
Alabama	837	1,743	836	+211	190	34	83
Mississippi	222	1,070	698	+242	67	25	80
West South Central	3,070	12,436	.....	.....	557	..	..
Arkansas	242	1,236	825	+225	62	30	84
Louisiana	713	1,851	1,045	+192	117	45	84
Oklahoma	301	1,732	1,070	+198	57	56	90
Texas	1,814	7,616	1,278	+209	320	49	89
Mountain	783	5,011	.....	.....	143	..	..
Montana	82	601	1,605	+178	16	55	97
Idaho	92	626	1,287	+191	15	54	97
Wyoming	30	321	1,509	+150	6	58	97
Colorado	279	1,357	1,392	+168	50	72	97
New Mexico	52	569	1,109	+212	9	36	91
Arizona	92	677	1,240	+166	14	43	94
Utah	138	657	1,271	+166	29	67	99
Nevada	19	204	1,875	+128	3	52	96
Pacific	5,728	15,410	.....	.....	923	..	..
Washington	927	2,276	1,642	+160	156	69	98
Oregon	633	1,679	1,523	+165	111	61	97
California	4,168	11,455	1,751	+118	656	69	98
Total	75,367	140,317	1,436	+150	13,567	63	94

* Based on preliminary report of Census of Manufactures. Value added by manufacture is computed by subtracting cost of materials and supplies. † Copyright 1951 *Sales Management* "Survey of Buying Power"; further reproduction not licensed.

Business Cycles in the United States
(Standard Reference Dates)

Source: National Bureau of Economic Research.

Peak of expansion	Trough of contraction	Duration in months: Expansion	Contraction	Full cycle
June 1857*	December 1858	30	18	48
October 1860	June 1861	22	8	30
April 1865	December 1867	46	32	78
June 1869	December 1870	18	18	36
October 1873	March 1879	34	65	99
March 1882	May 1885	36	38	74
March 1887	April 1888	22	13	35
July 1890	May 1891	27	10	37
January 1893	June 1894	20	17	37
December 1895	June 1897	18	18	36
June 1899	December 1900	24	18	42
September 1902	August 1904	21	23	44
May 1907	June 1908	33	13	46
January 1910	January 1912	19	24	43
January 1913	December 1914	12	23	35
August 1918	April 1919	44	8	52
January 1920	July 1921	9	18	27
May 1923	July 1924	22	14	36
October 1926	November 1927	27	13	40
June 1929	March 1933	19	45	64
May 1937	June 1938	50	13	63
February 1945	October 1945	80	8	88
November 1948	October 1949	37	11	48
Average duration 23 cycles 1854 to 1949.....		29.1	20.3	49.5

* Date of previous trough of contraction was December, 1854.

Business Population
(in thousands of concerns)

Source: U. S. Department of Commerce, Dun & Bradstreet.

Item	1929	1933	1941	1943	1944	1945	1946	1947	1949	1950
Total operating businesses[1]	3097	2847	3364	3045	3062	3258	3605	3879	3965	3980
Manufacturing	258	167	235	239	245	263	302	331	312	303
Wholesale trade	115	110	155	141	146	160	181	197	203	204
Retail trade	1341	1304	1590	1400	1393	1457	1574	1673	1693	1685
Transportation, communications, public utilities	117	106	146	121	124	140	163	181	189	194
Finance, insurance & real estate	325	289	306	301	312	325	338	345	345	347
Service industries	670	652	706	653	657	706	773	831	853	855
Mining & quarrying	38	34	39	32	31	31	32	34	35	34
Contract construction	233	185	187	158	153	177	243	289	335	358
New entrants[2]	(3)	(3)	(3)	(3)	355	430	620	476	359	398
Discontinued businesses[2]	(3)	(3)	(3)	(3)	198	203	226	292	386	365
Commercial & industrial failures[4]	23	20	12	3	1	1	1	3	5	9

[1] Average number of firms in operation during the year. [2] Annual totals. [3] Not available. [4] Closures resulting in a known loss to creditors. NOTE: Detail will not necessarily add to totals because of rounding.

WHAT INDUSTRY MAKES

American industry is the most productive in the world. Because of its unsurpassed stock of modern plants, machinery and other productive equipment, the training and efficiency of its more than 23 million workers, and the skillful productive techniques instituted and supervised by intelligent management, industrial output per man-hour in the United States is reliably estimated at approximately twice the British level, three to four times the prewar French and German achievements, and many more times those of other European countries.

Manufacturing is the pivotal industrial occupation, for its periodic expansions and contractions largely determine the level of activity achieved in every other sector of the economy. Armed conflict in Korea brought with it the second wave of broad industry expansion the United States has experienced in little more than ten years.

The early postwar period saw a quick rise in industrial production for civilian purposes which took up much of the drop in the output of war goods. During 1949 it became apparent that many war born shortages had been made up and there was a drop in the level of production and a shift in its character. Then came the outbreak of open hostilities in Korea. After a relatively short interlude of voluntary disarmament, the United States once more had to embark on a program of concerted preparations for national defense. Unlike 1939, consumers went on an unprecedented buying spree.

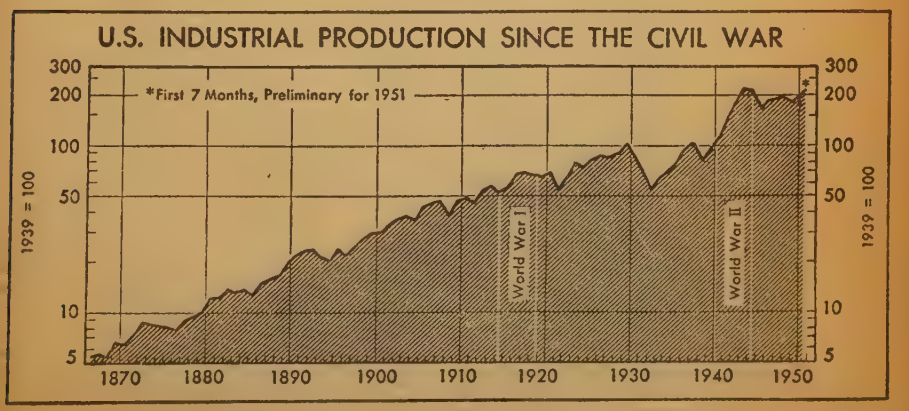
By mid '51, the new pattern began to emerge quite clearly. Regardless of the outcome in Korea, this country was firmly committed to maintain and build up its defensive strength in order to be prepared for any eventuality. We blueprinted and started a tremendous program of industry expansion. With these two vital supports, American industry was ready to reach for new record highs in production.

Census of Manufactures by Major Industry Group: 1939, 1947 and 1949

Source: Bureau of Census, U. S. Department of Commerce.

Group	No. of establishments (units)		Production and related workers (average for the year) (thousands)			Value added by manufacture* (millions)		
	1939	1947	1939	1947	1949	1939	1947	1949
Food and kindred products	43,667	39,933	802	1,099	1,077	$ 3,485	$ 9,025	$ 9,426
Tobacco manufactures	765	1,086	88	103	93	350	641	779
Textile mill products	6,388	8,185	1,082	1,147	1,065	1,818	5,341	4,741
Apparel and related products	20,275	30,960	753	973	1,009	1,386	4,443	4,245
Lumber and products, except furniture	13,208	26,231	423	596	601	731	2,497	2,284
Furniture and fixtures	5,178	7,687	189	283	269	418	1,378	1,412
Paper and allied products	3,328	4,103	270	389	377	888	2,875	2,777
Printing and publishing industries	24,878	28,986	324	438	462	1,765	4,269	4,659
Chemicals and allied products	8,839	10,073	276	466	440	1,819	5,365	5,848
Petroleum and coal products	1,227	1,387	108	170	167	697	2,015	1,744
Rubber products	595	875	121	215	180	406	1,303	1,195
Leather and leather products	3,505	5,308	327	349	337	583	1,533	1,387
Stone, clay and glass products	6,678	11,650	267	406	387	856	2,306	2,451
Primary and metal industries	3,512	5,363	672	1,010	868	2,169	5,765	5,710
Fabricated metal products	9,532	16,734	451	823	710	1,401	4,921	4,834
Machinery (except electrical)	8,860	17,906	536	1,244	1,005	2,037	7,812	7,689
Electrical machinery	1,979	3,973	248	639	506	941	3,894	3,902
Transportation equipment	2,012	3,711	545	987	936	1,773	5,869	7,054
Instruments and related products	1,292	2,599	85	182	156	333	1,080	1,123
Miscellaneous manufactures	8,084	14,131	242	398	370	630	2,090	2,109
All industries, total	173,802	240,881	7,808	11,916	11,016	$24,487	$74,426	$75,367

* Value added by manufacture is computed by subtracting cost of materials and supplies from value of shipments.



Industrial Production Indexes, by Groups

(1935–39 average = 100)

Source: Board of Governors of the Federal Reserve System.

Item	1919	1929	1932	1939	1941	1943	1945	1947	1948	1949	1950	1951*
Durable manufactures												
Iron and steel	84	133	32	114	186	208	183	195	208	188	229	260
Machinery	—	130	43	104	221	443	343	277	277	234	270	332
Transportation equipment	—	134	38	103	245	735	487	230	235	235	261	306
Nonferrous metal and products	—	136	52	113	191	267	204	187	193	160	209	212
Lumber and products	—	146	51	106	134	129	109	143	146	130	159	166
Stone, clay and glass products	50	110	51	114	162	173	163	206	207	188	209	239
Total	84	132	41	109	201	360	274	220	225	202	237	274
Nondurable manufactures												
Textiles and products	73	94	71	112	152	153	146	163	170	147	183	190
Leather and products	94	95	76	105	123	114	117	116	111	106	111	110
Manufactured food products	77	101	79	108	127	145	150	157	159	163	164	166
Alcoholic beverages	—	—	—	98	117	117	178	190	185	172	190	204
Paper and products	—	85	65	114	150	139	139	158	164	156	187	208
Tobacco products	72	96	79	106	120	133	136	160	164	165	168	174
Printing and publishing	—	104	74	106	127	111	108	144	154	154	170	175
Petroleum and coal products	—	96	69	110	135	185	236	193	218	209	229	267
Chemical products	—	89	68	112	176	384	284	251	254	241	263	294
Rubber products	—	100	64	113	163	228	215	226	206	183	223	242
Total	62	93	70	109	142	176	166	172	177	168	187	199
Total, durable and nondurable manufactures	72	110	57	109	168	258	214	194	199	183	209	233
Minerals												
Fuels	—	103	72	105	122	132	143	155	161	139	152	166
Metals	—	134	36	113	149	126	101	117	120	107	125	138
Total	71	107	67	106	125	132	137	149	155	135	148	163
Total, manufactures and minerals	72	110	58	109	162	239	203	187	192	176	200	222

* First 6 months seasonally adjusted average, preliminary.

Electric Energy Output of Utilities*

(in millions of kilowatt hours)

Source: Federal Power Commission.

Year	Total	Ownership						Source of energy	
		Privately owned	Publicly owned†	Municipal	Federal	Co-operatives, power districts, state projects	% Public to total	Fuels	Fuels as % of total
1920	39,405	37,716	1,689	1,373	58	94	4.3	23,644	60.0
1929	92,180	87,514	4,667	3,498	300	451	5.1	59,533	64.6
1932	79,393	74,488	4,905	3,517	445	572	6.2	46,515	58.6
1933	81,740	76,668	5,072	3,583	458	654	6.2	48,283	59.1
1935	95,287	89,330	5,958	4,229	555	732	6.3	56,915	59.7
1937	118,913	110,464	8,449	5,270	1,843	863	7.1	74,900	63.0
1939	127,642	115,078	12,564	5,688	5,476	944	9.8	84,078	65.9
1940	141,837	125,411	16,426	6,188	8,584	1,175	11.6	94,516	66.6
1941	164,788	144,290	20,498	7,023	10,794	2,192	12.4	113,925	69.1
1942	185,979	158,052	27,928	7,610	16,893	2,848	15.0	122,109	65.7
1943	217,759	180,247	37,511	9,223	24,485	3,156	17.2	144,127	66.2
1944	228,189	185,850	42,339	9,637	28,866	3,065	18.6	154,244	67.6
1945	222,486	180,926	41,560	9,624	28,001	3,146	18.7	142,516	64.1
1946	223,178	181,020	42,158	10,801	26,960	3,598	18.9	144,772	64.9
1947	255,739	208,105	47,634	12,415	29,877	4,511	18.6	177,313	69.3
1948	282,698	228,231	54,467	13,123	35,373	5,134	19.3	200,228	70.8
1949	291,100	233,112	57,988	13,410	38,102	5,643	19.9	201,351	69.2
1950	329,141	266,860	62,281	15,244	40,388	5,793	18.9	233,203	70.9

* Output by industrial establishments was as follows (in millions of kilowatt hours): 1939—33,667; 1940—38,070; 1941—43,519; 1942—47,107; 1943—49,781; 1944—51,336; 1945—48,769; 1946—46,431; 1947—51,661; 1948—54,110; 1949—53,967; 1950—59,333. † Includes non-central stations.

Fuel Production

Source: U. S. Dept. of Interior, U. S. Dept. of Commerce, and American Gas Association.

Year	Coke, in thousands of short tons	Anthracite coal, in thousands of short tons	Bituminous coal, in thousands of short tons	Natural gas, in millions of therms (produced and marketed)[1]	Manufactured gas, in millions of therms[2]	Crude petroleum, in thousands of 42-gal. barrels
1929	59,884	73,828	534,989	20,490[3]	2,070[3]	1,007,323
1933	27,589	49,541	333,631	16,640[3]	1,820	905,656
1939	44,327	51,487	394,855	26,220	1,830	1,264,962
1941	65,187	56,368	514,149	29,780	1,990	1,402,228
1943	71,676	60,644	590,177	36,180	2,240	1,505,613
1944	74,038	64,445	619,576	39,290	2,300	1,677,904
1945	67,308	54,830	577,617	41,960	2,600	1,713,655
1946	58,498	60,507	533,922	43,030	2,690	1,733,424
1947	73,446	57,190	630,624	27,150	2,870	1,856,107
1948	74,862	57,140	599,518	53,130	2,850	2,016,282
1949	63,637	42,702	437,868	55,770[4]	2,680	1,840,307
1950	72,100	44,392	511,441	63,720[4]	2,660	1,971,845
1951[5]	32,716	16,128	199,109	.....	....	911,843

[1] Includes all natural gas in sales of natural gas mixed with manufactured gas. [2] Includes all manufactured gas products produced and purchased by gas utilities. [3] Estimated. [4] Preliminary. [5] First 5 months.

Textile Consumption

Source: U. S. Dept. of Commerce.

The Rayon Organon.

Year	Cotton (thousands of bales)	Wool consumption* (millions of lbs.)	Filament rayon yarn (thousands of lbs.)
1920	5,843	314	8,760
1929	5,407	368	131,760
1932	5,017	230	152,520
1941	10,586	648	452,520
1943	10,666	636	494,400
1945	9,143	645	602,400
1946	9,827	748	666,400
1947	9,539	698	729,300
1948	9,099	693	836,500
1949	7,875	505	781,100
1950	9,652	625	949,100
1951†	3,828	196	319,900

* Scoured basis. † First 4 months.

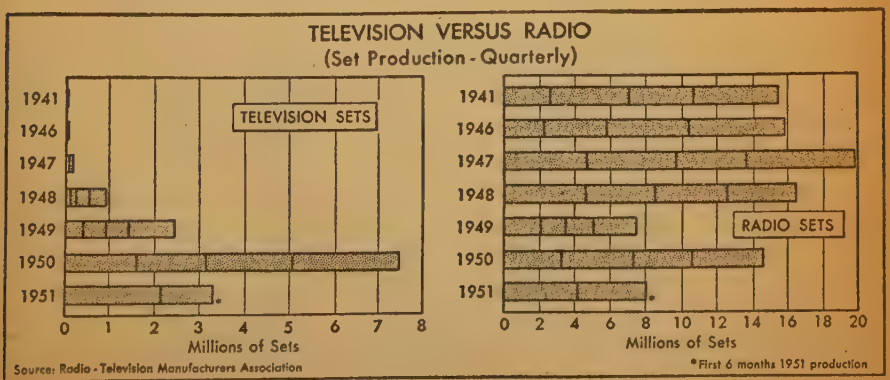
Expenditures for New Plant and Equipment*

(millions of dollars)

Source: Securities and Exchange Commission and U. S. Department of Commerce.

Year	Manufacturing and mining	Transportation	All other†	Total
1939	2,310	560	2,330	5,200
1941	4,080	900	3,200	8,180
1945	3,650	870	2,110	6,630
1946	6,470	1,230	4,340	12,040
1947	8,150	1,710	6,330	16,190
1948	9,140	2,020	8,070	19,230
1949	7,990	1,870	8,260	18,120
1950	8,900	1,580	8,090	18,570
1951‡	12,786	2,020	9,106	23,973

* Data exclude agriculture. † Includes electric and gas utilities, trade, service, communications, construction and finance. ‡ First 3 quarters, annual rates, estimated.



Metals Production (in short tons)

Source: American Iron & Steel Institute, *Iron Age*, Copper Institute, Zinc Institute, American Bureau of Metal Statistics and U. S. Bureau of Mines.

Year	Pig iron and ferro-alloys	Steel ingots and castings	Rolled iron and steel products: Total	Rolled iron and steel products: Plates and sheets	Aluminum (primary)	Copper (smelter output from domestic ore)	Zinc (slab smelter output, all grades)*	Refined lead (from domestic ore; antimonial lead excluded)
1929	47,727,661	63,205,490	45,997,746	13,928,670	113,986	1,001,432	631,601	672,498
1932	9,835,227	15,322,901	11,705,219	3,956,505	52,444	272,005	213,531	255,337
1939	35,677,097	52,798,714	39,067,553	13,931,919	163,545	712,675	538,198	420,967
1941	56,686,604	82,839,259	62,324,187	20,293,071	309,067	966,072	863,955	470,517
1943	62,769,947	88,836,512	63,292,673	22,543,040	920,179	1,092,939	971,873	406,544
1945	54,919,029	79,701,648	59,811,669	19,314,316	495,060	782,726	799,520	356,535
1946	46,514,826	66,602,724	50,936,772	16,324,199	409,630	599,656	759,346	293,309
1947	60,117,319	84,894,071	66,202,144	23,325,500	571,750	862,872	848,027	381,109
1948	61,911,559	88,640,470	69,191,952	25,694,480	623,456	842,477	850,105	339,413
1949	54,916,785	77,978,176	60,882,387	23,470,886	603,462	757,931	870,113	404,449
1950	66,400,311	96,696,769	74,822,981	29,864,122	718,622	901,000†	910,354	433,000†

* From 1940 includes both foreign and domestic ores. † Preliminary.

Production of Chemicals

Source: U. S. Department of Commerce, U. S. Tariff Commission, U. S. Treasury Department, National Fertilizer Association, U. S. Bureau of Mines; W. P. B.

	Methanol[1] (in thousands of proof gals.)	Sulfuric acid (in short tons)	Ethyl alcohol (in thousands of proof gals.)	Sulfur (in long tons)	Glycerin[2] (in thousands of pounds)	Explosives[3] (in thousands of pounds)	Fertilizer[4] (in thousands of short tons)	Paint, varnish, lacquer and fillers[5] (in thousands of dollars)
1929	12,408[6]	2,262,780	206,664	2,357,640	113,140	484,596	8,011	434,820
1932	10,116	952,584	128,820	929,556	107,853[7]	227,508	4,384	202,920
1939	38,916	2,051,532	221,628	2,088,384	154,376	372,468	7,707	379,272
1941	61,872	6,820,080	367,680	3,131,328	194,327	460,080	9,183	554,196
1943	69,804	8,604,576	5,388	2,538,792	159,706	451,776	11,463	568,620
1945	77,532	9,552,771	433,122	3,753,188	172,812	440,148	13,202	643,424
1946	76,944	9,305,145	244,628	3,859,642	148,562	515,772	14,892	794,899
1947	84,707	10,574,941	315,671	4,441,214	191,611	606,870	15,039	1,038,578
1948	158,465	10,950,097	324,331	4,869,211	196,279	665,525	15,980	1,053,023
1949	127,212	10,884,761	320,852	4,745,014	199,978	604,475	16,449	940,907
1950	137,619	12,805,024	385,113	5,192,184	230,022	692,563	18,346	1,127,788

[1] Crude and synthetic. [2] High gravity and yellow distilled and chemically pure. [3] Shipments. [4] Consumption. [5] Sales. [6] 1930. [7] 1933.

Wood Pulp, Paper and Lumber

Source: U. S. Bureau of the Census and National Lumber Manufacturers Assn.

Year	Wood pulp (in thousands of short tons)	Paper and paperboard (in thousands of short tons)	Lumber (in millions of board feet)
1919	3,518	6,098	34,552
1929	4,863	11,140	36,886
1939	6,993	13,510	25,148
1941*	10,011	17,934	33,613
1943	9,060	17,036	34,289
1945	9,471	17,374	28,122
1946	9,904	19,187	34,112
1947	11,952	21,034	35,404
1948	12,881	22,061	36,828
1949	12,083	20,299	34,419
1950	14,768	24,289	39,379
1951†	6,887	11,454	16,318

* Coverage for paper and paperboard increased in 1941. † First 5 months, preliminary.

Number of Nonfarm Houses Built*

Source: U. S. Bureau of Labor Statistics, National Bureau of Economic Research.

Year	Houses	Year	Houses
1900	204,000	1936	319,000
1905	459,000	1937	336,000
1910	475,000	1938	406,000
1915	475,000	1939	515,000
1920	247,000	1940	603,000
1922	716,000	1941	715,000
1925	937,000	1942	497,000
1927	810,000	1943	350,000
1928	753,000	1944	169,000
1929	509,000	1945	226,000
1930	330,000	1946	670,500
1931	254,000	1947	849,000
1932	134,000	1948	931,600
1933	93,000	1949	1,025,100
1934	126,000	1950	1,396,000
1935	221,000	1951†	347,500

* Data represents new dwelling units started. † First 4 months, preliminary.

Consumer Durable Goods Output

Source: Electrical Merchandising, Radio and Television Retailing, and Automobile Manufacturers Association.

Year	Electric clothes washers: Number sold, in thousands	Electric clothes washers: Average retail price	Electric irons: Number sold, in thousands	Electric irons: Average retail price	Electric ranges: Number sold, in thousands	Electric ranges: Average retail price	Electric vacuum cleaners: Number sold, in thousands	Electric vacuum cleaners: Average retail price	Electric refrigerators: Number sold, in thousands	Electric refrigerators: Average retail price	Home radio sets: Number sold, in thousands	Home radio sets: Average retail price	Passenger cars: Factory sales, in thousands	Passenger cars: Average factory price
1900	....	...	....	...	....	...	....	...	....	...	....	...	4	$1,229
1910	31	$75[1]	....	...	....	...	....	...	....	...	....	...	181	1,190
1920	600	120	....	...	40	...	1,024	50	5[4]	$550[4]	100[5]	$50[5]	1,906	949
1925	736	141	2,750	$5.81	85	$176	1,056	62	75	425	2,000	83	3,735	658
1929	956	113	....	...	173	165	1,253	50	778	292	4,428	136	4,587	621
1932	570	59	....	...	60	150	447	40	798	195	3,000	47	1,135	545
1937	1,465	72	4,157	3.87	405	134	1,210	56	2,310	171	8,065	56	3,916	573
1940	1,455	72	5,171	3.65	450	140	1,341	55	2,600	152	11,800	38	3,717	638
1941	1,892	79	5,585	3.78	728	142	1,670	56	3,500	155	13,000	35	3,780	679
1942	449	91	1,145	4.34	225	...	580	61	520	...	4,400	35	223	738
1945	251[2]	...	1,687	...	74	...	258[3]	...	264	...	500	40	70	818
1946	2,047	121	9,600	8.64	577	186	2,290	68	2,100	207	14,000	50	2,149	921
1947	3,657	148	11,004	11.02	1,210	230	3,801	75	3,400	240	17,000	67	3,558	1,114
1948	4,196	173	7,360	12.82	1,600	235	3,361	77	4,766	260	14,000	43	3,909	1,220
1949	3,065	171	6,310	12.94	1,056	230	2,890	77	4,450	255	10,000	50	5,109	....
1950	4,212	184	7,475	13.54	1,830	233	3,500	78	6,200	258	14,000	46	6,673	....

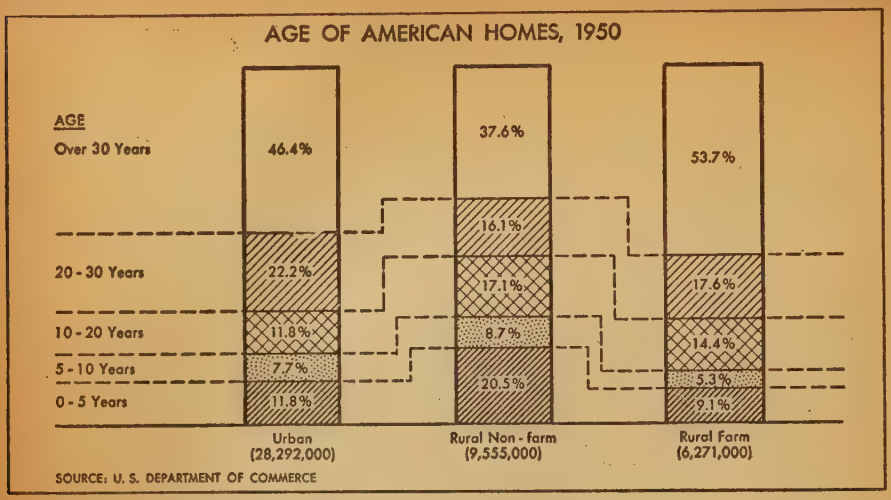
[1] 1909. [2] Includes gas engine washers. [3] Includes hand cleaners. [4] 1921. [5] 1922.

New Construction Activity, by Type
(in millions of dollars)

Source: U. S. Department of Commerce and U. S. Department of Labor.

Activity	1929	1933	1940	1945	1947	1949	1950	1951[1]
Total new construction activity	10,793	2,879	8,682	5,633	16,627	22,584	27,902	11,149
New private construction activity	8,307	1,231	5,504	3,235	13,131	16,181	20,789	8,085
Residential (nonfarm)	3,625	470	2,985	1,100	6,310	8,267	12,600	4,317
New dwelling units	3,040	290	2,560	720	5,450	7,257	11,525	3,910
Additions and alterations	340	145	335	340	735	825	900	325
Nonhousekeeping	245	35	90	40	125	185	175	82
Nonresidential building, except farm and public utility	2,694	406	1,025	1,020	3,142	3,228	3,777	2,001
Industrial	949	176	442	642	1,702	972	1,062	717
Commercial[2]	1,135	130	348	203	856	1,027	1,288	626
Other	610	100	235	175	584	1,229	1,427	658
Public utility	1,578	261	771	827	2,338	3,316	3,130	1,302
Railroad	510	94	167	264	318	352	315	132
Telephone and telegraph	354	45	122	117	510	533	440	188
Other public utility	714	115	482	446	1,510	2,431	2,375	982
Farm construction	307	49	240	267	1,272	1,292	1,170	439
Residential	147	29	145	100	611	621	562	...
Nonresidential	160	20	95	167	661	671	608	...
All other private	103	45	33	21	69	78	112	26
New public construction activity	2,486	1,648	3,628	2,398	3,496	6,403	7,113	3,064
Residential	...	...	200	80	200	359	345	199
Nonresidential building	659	230	615	937	599	2,068	2,402	1,257
Industrial	...	2	164	755	96	177	224	236
Educational	389	52	156	59	287	934	1,163	599
Hospital and institutional	101	49	54	85	85	477	476	217
Other	169	127	241	38	131	480	539	205
Military and Naval	19	36	385	690	204	137	177	239
Highway	1,266	847	1,302	398	1,514	2,129	2,350	645
Sewer and water	253	95	338	97	351	619	671	290
Conservation and development	115	359	528	130	394	793	886	328
All other[3]	23	16	260	66	234	298	282	106

[1] First 5 months, preliminary. [2] Warehouses, office and loft buildings; stores, restaurants, and garages. [3] Miscellaneous public service enterprises and all Federal not included elsewhere.



WHAT FARMERS PRODUCE

The United States is universally recognized as the industrial giant of the world. Less well known is the fact that it is also by far the leading nation in agricultural output.

There is every reason to believe that this substantial margin of leadership will continue, even expand. For a technological and scientific revolution is taking place in agriculture which may well be fully as important—and as dislocating—as the industrial revolution of the 18th and 19th centuries. This revolution on the farm involves the greater use of more efficient machinery, the better application of chemical fertilizers and insecticides, the introduction of greatly improved strains of seed, and the beginnings of the new industry of "chemical farming."

A foretaste of this technological progress took place during World War II. High costs of keeping working stock and high farm wages made farmers anxious to mechanize their farms, and with war-increased incomes they could afford it. Thanks to mechanization and a ready market here and abroad, farm production was steadily above prewar levels throughout the war and postwar periods. This was accomplished even though farm population declined substantially.

In the early postwar period this record farm production was a highly welcome gift to help us feed a hungry and war-ravished world. As other countries rebuilt their own agricultural output, however, and needed less from us, we seemed to be coming up once more against our old problem of farm surpluses. The war in Korea, however, may well have delayed indefinitely the time when we will really have to face and solve this problem; by mid '51, even a record crop of cotton, for example, could not change the basic optimistic tone of the agricultural segment of the American economy.

Population, Farms, and Farm Property

Source: U. S. Bureau of the Census.

Item	1850	1910	1920	1925	1930	1940	1945	1950
Farm population (thousands)	.....	32,077	31,559	30,443	29,450	29,047	24,342	24,335
Number of farms (thousands)	1,449	6,361	6,448	6,371	6,288	6,096	5,859	6,485
All land in farms (million acres)	293	878	955	924	986	1,060	1,142	....
Average acreage per farm	202.6	138.1	148.2	145.1	156.9	174.0	194.8	....
Value of farm property (millions of dollars)	3,967	40,837	77,923	57,017	56,975	41,254	60,008	....
Land	.....	28,475	54,829	37,721	34,929	23,236	46389	....
Buildings	.....	6,325	11,486	11,746	12,949	10,405		....
Implements and machinery	151	1,265	3,594	2,691	3,301	3,060	5,147*	....
Livestock	544	4,771	8,012	4,858	5,794	4,526	8,472	....
Total population (thousands)	23,191	91,972	105,710	114,035	122.775	131,669	125,120†	149,856
Urban	.....	42,166	54,304	61,451	68,954	74,423	74,570	95,892
Rural	.....	49,806	51,406	52,584	53,820	57,245	50,580	53,964

* Excludes automobiles included in earlier years. † Excluding armed services.

Production of Agricultural Commodities, by Kind

Year	Corn, 1,000 bushels	Wheat, 1,000 bushels	Rice (rough) 1,000 bushels	Sugar: Beet (chiefly refined) 1,000 pounds	Sugar: Cane (chiefly raw) 1,000 pounds	Cotton 1,000 bales of 500 lbs.	Tobacco, 1,000 pounds
1900	2,661,978	599,315	9,793	172,164	623,772	10,124	851,980
1905	2,954,148	706,026	16,038	625,842	781,204	10,576	938,865
1910	2,852,794	625,476	24,731	1,020,344	724,000	11,609	1,142,320
1915	2,829,044	1,008,637	26,107	1,748,000	282,000	11,172	1,157,425
1920	3,070,604	843,277	51,648	2,178,000	360,000	13,429	1,509,212
1925	2,798,367	668,700	33,038	1,286,000	284,000	16,105	1,376,008
1929	2,515,937	824,183	39,534	2,036,000	436,000	14,825	1,532,676
1934	1,448,920	526,052	39,047	2,320,000	534,000	9,636	1,084,589
1939	2,580,985	741,210	54,062	3,288,000	1,008,000	11,817	1,880,629
1945	2,880,933	1,108,224	68,150	2,366,000	950,000	9,015	1,994,262
1946	3,249,950	1,153,046	72,216	2,846,000	850,000	8,640	2,319,409
1947	2,383,970	1,367,186	78,259	3,430,000	752,000	11,857	2,167,702
1948	3,650,548	1,288,406	81,170	2,560,000	954,000	14,937	1,981,730
1949	3,377,790	1,146,463	40,113†	2,924,000	1,040,000	16,128	1,970,376
1950	3,131,009	1,026,755	37,971†	3,672,000*	1,050,000	10,012	2,032,450
1951*	3,206,992	998,286	43,109†	.....	.....	17,266	2,249,280

* Preliminary estimate. † Thousands of 100-lb. bags.

Domestic Animals on Farms, Number and Value

January 1:	Number (thousands): Horses	Mules	Dairy cows	Sheep	Swine	Chickens	Turkeys	Value of horses, mules, sheep, swine and cattle (millions of dollars)
1943	9,605	3,626	27,138	55,150	73,881	542,047	6,600	8,983
1944	9,192	3,421	27,704	50,782	83,741	582,197	7,429	8,901
1945	8,715	3,235	27,770	46,520	59,331	516,497	7,203	8,279
1946	8,053	3,010	26,695	42,436	61,301	530,203	8,493	8,952
1947	7,249	2,773	26,098	37,818	56,921	474,441	6,650	11,168
1948	6,589	2,541	25,039	34,827	52,028	461,550	4,450	12,668
1949	5,898	2,348	24,416	31,654	57,128	448,676	5,540	13,904
1950	5,274	2,149	24,573	30,743	60,502	480,834	5,986	12,492
1951	4,763	1,990	24,579	31,505	65,028	466,686	5,975	16,801

Agricultural Co-operatives

Source: Farm Credit Administration.

Marketing season	Number	Estimated membership (thousands)	Business (in millions of dollars)
1915	5,424	651	636
1925–26	10,803	2,700	2,400
1929–30	12,000	3,100	2,500
1933–34	10,900	3,156	1,365
1934–35	10,700	3,280	1,530
1935–36	10,500	3,660	1,840
1936–37	10,743	3,270	2,196
1937–38	10,900	3,400	2,400
1938–39	10,700	3,300	2,100
1939–40	10,700	3,200	2,087
1940–41	10,600	3,400	2,280
1941–42	10,550	3,600	2,840
1942–43	10,450	3,850	3,780
1943–44	10,300	4,250	5,160
1944–45	10,150	4,505	5,645
1945–46	10,150	5,010	6,070
1946–47	10,125	5,436	7,116
1947–48	10,135	5,900	8,635
1948–49	10,075	6,384	9,320
1949–50	10,035	6,584	8,726

Source: U. S. Department of Agriculture.

Civilian Consumption of Principal Foods

(in pounds per capita)

Source: U. S. Bureau of Agri. Economics.

Foods	1935–39 avg.	1949	1950
Red meats	126.2	143.9	143.7
Poultry meats	20.5	29.7	31.9
Eggs*	298	381	394
Fluid milk and cream	340	384	385
Cheese	5.5	7.2	7.5
Butter†	16.7	10.5	10.8
Fats and oils†	31.9	34.9	37.9
Fresh fruits	139.5	125	108.7
Processed fruits‡	25.4	41.7	43.3
Fresh vegetables	235	249	253
Processed vegs.‡	39.1	48.3	53.4
Potatoes, sweetpots.	152.4	122.3	117.7
Sugar	97.0	94.9	95.5
Corn products	37.5	32.1	33.2
Wheat flour	159	135	136
Coffee	14.0	18.6	16.1
Tea	.67	.59	.65
Cocoa	4.4	4	4.3

* Number, not pounds. † Excludes butter. ‡ Pack year

Agricultural Output by States, 1950 Crops

(In thousands of bushels; except cotton lint in thousands of 500 pounds gross weight bales, and tobacco in thousands of pounds) *Source:* U. S. Department of Agriculture.

State	Wheat	Corn	Oats	Barley	Cotton lint	Potatoes	Tobacco
Alabama	180	64,012	4,108	40	576	3,955	400
Arizona	672	396	300	84	474	1,704	.....
Arkansas	285	38,610	6,254	6,520	1,090	1,863	.....
California	13,671	2,924	6,272	57,600	978	48,075	.....
Colorado	39,924	14,496	4,940	9,555	.....	18,600	.....
Connecticut	.....	1,935	190	.....	.....	3,481	27,412
Delaware	1,037	5,256	224	348	.....	628	.....
Florida	.....	9,968	288	.....	13	5,664	23,268
Georgia	1,900	57,172	16,119	110	488	1,248	102,120
Idaho	37,350	1,645	9,540	13,896	.....	46,610	.....
Illinois	27,538	419,934	166,218	1,344	.....	882	.....
Indiana	31,798	213,790	52,577	675	.....	4,845	12,850
Iowa	5,740	463,655	264,737	1,920	.....	1,300	.....
Kansas	178,060	93,188	21,120	3,556	.....	1,060	240
Kentucky	3,900	78,810	2,832	1,480	.....	2,418	361,655
Louisiana	.....	19,918	1,952	.....	426	1,386	150
Maine	.....	455	4,802	210	.....	61,750	.....
Maryland	6,086	18,920	1,870	2,759	.....	1,664	40,000
Massachusetts	.....	1,520	231	.....	.....	2,816	13,675
Michigan	29,666	64,796	58,460	3,910	.....	17,460	.....
Minnesota	15,410	194,218	188,737	36,934	.....	17,640	520
Mississippi	126	60,473	7,719	25	1,332	1,035	.....
Missouri	24,516	187,116	55,242	1,720	254	2,346	5,390
Montana	93,958	3,838	15,984	23,772	.....	2,590	.....
Nebraska	84,788	250,675	66,100	4,864	.....	11,700	.....
Nevada	471	105	360	1,050	.....	468	.....
New Hampshire	.....	630	210	.....	.....	980	.....
New Jersey	1,677	9,558	1,677	512	.....	12,980	.....
New Mexico	955	1,414	759	836	187	240	.....
New York	12,585	30,340	33,841	2,550	.....	34,315	700
North Carolina	5,438	81,955	11,859	888	181	10,368	875,990
North Dakota	120,724	25,042	59,528	50,688	.....	22,230	.....
Ohio	46,596	174,928	41,292	728	.....	7,600	24,610
Oklahoma	43,614	31,725	14,665	1,242	242	870	.....
Oregon	23,693	1,036	8,992	12,210	.....	13,200	.....
Pennsylvania	19,184	60,834	29,944	5,644	.....	18,525	61,365
Rhode Island	.....	280	33	.....	.....	1,275	.....
South Carolina	2,184	33,258	18,984	440	405	1,768	150,480
South Dakota	33,978	99,296	87,742	18,942	.....	2,250	.....
Tennessee	3,375	72,794	5,975	1,221	409	2,200	132,105
Texas	22,712	65,730	27,027	1,729	2,946	2,752	.....
Utah	8,008	960	2,186	5,520	.....	3,335	.....
Vermont	.....	3,060	1,295	27	.....	1,092	.....
Virginia	7,862	54,733	5,200	2,898	4	9,405	165,496
Washington	67,582	870	8,183	8,750	.....	11,780	.....
West Virginia	1,221	9,287	1,568	392	.....	1,980	3,379
Wisconsin	2,073	104,304	141,814	8,856	.....	15,015	30,645
Wyoming	6,218	1,156	5,184	4,564	.....	2,152	.....
Total	1,026,755	3,131,009	1,465,134	301,009	10,012	439,500	2,032,450

U. S. Farm Index

(1910-14 = 100)

Source: U. S. Department of Agriculture

Year	Prices paid by farmers*	Farm Wage Rate	Prices rec'd by farmers†
1935–39 aver.	125	121	107
1946	207	387	234
1947	240	419	275
1948	259	442	285
1949	250	430	249
1950	255	432	256
1951‡	279	464	306

* Commodities, interest and taxes and wage rates. † All crops and livestock. ‡ Average first 6 months.

Farm Tenancy

Source: U. S. Bureau of the Census.

Year	Farms operated by tenants (in thousands)	Total farms (in thousands)	Tenancy as % of total
1880	1,025	4,009	25.6
1890	1,295	4,565	28.4
1900	2,025	5,737	35.3
1910	2,355	6,362	37.0
1920	2,455	6,448	38.1
1930	2,664	6,289	42.4
1940	2,361	6,097	38.7
1945	1,858	5,859	31.7
1950	2,039	6,485	31.4

WHAT COMMERCE DISTRIBUTES

In a mass-production economy, distribution is a highly intricate process. This is reflected in the fact that more than half the consumer's dollar goes for distribution and less than half for production. (Distribution costs include those of such services as advertising and insurance as well as transportation and selling costs.)

Commerce, like industry and agriculture, has made new records during the past decade. However, important changes have modified this segment of the nation's business. Sudden shifts in consumer preference, as between hard goods and soft goods, have profoundly affected the pattern of retail trade. Service industries have been chalking up a record of steadily growing volume. Transportation reflects substantial changes in American preference in shipping and traveling.

Wholesale and Retail Trade: No. of Establishments, 1939 and 1948

Source: Bureau of Census, Department of Commerce.

Kind of business group	No. of establishments 1939	1948
Retail trade, total	1,770,355	1,771,317
Food group	560,549	504,902
Eating and drinking places	305,386	346,677
General stores	39,688	21,566
General merchandise group	50,267	52,741
Apparel group	106,959	115,707
Furniture, furnishings, appliance group	52,827	85,680
Automotive group	60,132	86,194
Gasoline service stations	241,858	188,301
Lumber, building, hardware group	79,313	99,043
Drug and proprietary stores	57,903	55,903
Liquor	19,136	33,460
Secondhand stores	23,962	16,969
Other retail stores	172,375	164,174
Wholesale trade, total	199,726	243,366
Merchant wholesalers, total	100,961	146,518
Groceries, confectionery, meats	15,681	17,345
Farm products	10,945	13,539
Beer, wines, distilled spirits	6,232	7,195
Drugs, chemicals, allied products	3,298	4,671
Tobacco and products (except leaf)	2,717	3,019
Dry goods, apparel	8,275	11,733
Furniture, home furnishings	2,214	3,813
Paper and its products	2,898	4,044
Farm products—raw materials	2,086	2,594
Automotive	7,818	14,693
Electrical goods	3,072	5,443
Hardware, plumbing, heating	3,568	5,901
Lumber, construction materials	3,303	5,890
Machinery equipment & supplies	11,270	21,430
Metals, metalwork (except scrap)	1,017	1,803
Waste materials	6,059	7,717
Other merchant wholesalers	10,538	15,688
Manufacturers' sales branches, offices	17,926	23,768
Petroleum bulk stations, terminals	30,825	29,451
Agents, brokers	2 ,083	24,361
Assemblers (mainly farm products)	28,931	19,268

Sales of Leading Retail Outlets

Source: Moody's Manual of Industrials.

	1950 Sales* (in thousands)
DEPARTMENT STORES	
J. C. Penney Co.	$ 949,712
Allied Stores Corp.	439,909
May Department Stores Co.	416,689
Federated Department Stores	389,066
Gimbel Bros., Inc.	291,077
Marshall Field & Co.	222,899
R. H. Macy & Co., Inc.	183,897
VARIETY STORES	
F. W. Woolworth Co.	632,136
S. S. Kresge Co.	294,839
W. T. Grant Co.	250,574
S. H. Kress & Co.	161,657
G. C. Murphy Co.	150,508
J. J. Newberry Co.	145,671
McCrory Stores Corp.	98,666
GROCERY STORES	
Great Atlantic & Pacific Tea Co.	2,904,578
Safeway Stores, Inc.	1,209,994
Kroger Co.	861,242
First National Stores, Inc.	344,171
American Stores Co.	416,644
DRUG STORES	
Walgreen Co.	$ 163,395
United-Rexall Drug, Inc.	153,643
Sterling Drug Co.	138,727
People's Drug Store, Inc.	47,241
SHOE STORES	
Endicott Johnson Corp.	133,331
Melville Shoe Co.	77,081
Edison Bros. Stores, Inc.	73,779
A. S. Beck Shoe Corp.	59,163
G. R. Kinney Co.	35,228
Florsheim Shoe Co.	28,538
Miles Shoes, Inc.	23,898
MAIL-ORDER HOUSES	
Sears-Roebuck & Co.	2,556,371
Montgomery Ward & Co.	1,170,462
Spiegel, Inc.	143,517
FURNITURE STORES	
Barker Bros. Corp.	31,879
Reliable Stores Corp.	26,359
W. & J. Sloane	19,907
Spear & Co.	18,258
Sterchi Bros. Stores, Inc.	14,173
Sterling, Inc.	9,634

* For accounting year ending in 1950.

Retail Sales by Kind of Business Group

(in millions of dollars)

Source: U. S. Bureau of the Census.

Kind of business group	1929	1933	1941	1944	1947	1948	1949	1950	[1951*
Durable goods stores	14,180	4,844	15,604	10,618	32,142	38,008	39,874	48,671	20,473
Automotive group	7,043	2,368	8,544	3,465	15,528	19,309	22,728	28,316	12,192
Motor vehicle dealers	6,444	2,142	7,794	2,615	13,850	17,530	21,085	26,208	11,224
Parts and accessories	599	226	750	850	1,678	1,779	1,643	2,108	970
Building materials and hardware group	3,846	1,342	3,862	3,717	9,092	10,710	9,509	11,591	4,963
Building materials	2,621	854	2,435	2,171	5,695	6,801	6,020	7,790	3,232
Farm implements	519	177	524	539	1,180	1,555	1,401	1,539	704
Hardware	706	311	903	1,007	2,217	2,354	2,088	2,262	1,027
Home furnishings group	2,755	959	2,611	2,454	6,213	6,725	6,537	7,625	2,922
Furniture and house furnishings	1,813	646	1,787	1,951	3,746	4,045	3,744	4,132	1,636
Household appliances and radios	942	313	824	503	2,467	2,680	2,793	3,493	1,287
Jewelry	536	175	587	982	1,309	1,264	1,100	1,139	395
Nondurable goods stores	34,279	19,673	39,886	58,205	86,766	92,034	88,309	91,577	38,830
Apparel group	4,241	1,930	4,157	6,869	9,413	9,865	9,175	9,303	3,826
Men's clothing and furnishings	1,358	542	1,096	1,618	2,414	2,412	2,223	2,265	899
Women's apparel and accessories	1,480	754	1,690	3,193	4,141	4,530	4,193	4,214	1,759
Family and other apparel	596	209	605	936	1,325	1,386	1,281	1,310	526
Shoes	807	425	766	1,072	1,533	1,537	1,478	1,514	643
Drug Stores	1,690	1,066	1,821	2,811	3,659	3,687	3,605	3,639	1,548
Eating and drinking places	2,125	1,430	4,796	9,051	12,035	12,112	11,240	11,107	4,714
Food group	10,967	6,776	12,576	17,940	28,384	30,506	30,298	31,622	13,877
Grocery and combination	7,353	5,004	9,604	13,662	22,364	24,111	24,154	25,438	11,172
Other food	3,614	1,772	2,972	4,278	6,020	6,395	6,144	6,184	2,705
Filling stations	1,787	1,532	3,454	2,604	5,193	6,325	6,363	6,771	2,939
General merchandise group	9,015	4,982	7,931	10,890	16,033	17,015	16,019	16,769	6,540
Department, including mail order	4,350	2,538	5,027	6,764	10,645	11,337	10,618	11,228	4,356
General, incl. gen. mdse., with food	2,710	1,176	991	1,388	1,858	1,938	1,769	1,786	736
Other general mdse. and dry goods	1,051	590	738	1,208	1,538	1,609	1,509	1,572	624
Variety	904	678	1,175	1,530	1,992	2,131	2,123	2,183	823
Other retail stores	4,454	1,957	5,151	8,040	12,049	12,524	11,609	12,365	5,387
Liquor	.....	17	767	1,485	1,916	1,854	1,760	1,783	723
Other	4,454	1,940	4,384	6,555	10,133	10,670	9,849	10,582	4,663
All retail stores	48,459	24,517	55,490	68,823	118,908	130,042	128,183	140,248	59,304

* First 5 months, not adjusted for seasonal variation.

Wholesale Sales

(in millions of dollars)

Source: U. S. Department of Commerce.

Type of establishment	1929	1933	1941	1945	1947	1948	1949	1950*
Service and limited function	30,343	12,950	33,654	44,657	70,080	73,692	65,762	74,023
Durable goods	7,700	2,489	11,562	10,439	21,721	24,501	20,715	26,437
Automotive†	1,383	438	2,849	1,520	2,502	2,545	2,158	2,642
Lumber and building material	1,920	492	2,127	2,052	4,561	5,267	4,414	5,759
Electrical goods	917	290	1,459	1,339	4,316	5,084	4,677	5,944
Hardware	715	340	897	1,163	2,543	2,826	2,352	2,913
Housefurnishings	495	175	543	450	1,108	1,273	1,307	1,790
Jewelry and optical	380	105	410	507	642	638	505	572
Machinery and metals	1,890	649	3,277	3,408	6,049	6,868	5,302	6,817
Nondurable goods	22,643	10,461	22,092	34,218	48,359	49,191	45,047	47,586
Apparel and dry goods	2,850	1,250	2,739	3,744	6,523	6,176	4,978	5,298
Beers, wines and liquors	21	130	1,779	3,726	4,245	4,082	4,022	4,415
Drugs and sundries	535	352	658	1,121	1,494	1,640	1,644	1,792
Food	8,600	4,743	8,219	12,364	16,958	17,084	15,304	15,914
Paper and its products	704	334	750	866	1,625	1,575	1,437	1,686
Tobacco products	859	526	1,290	1,826	2,390	2,243	2,084	2,069
All other	9,074	3,126	6,657	10,571	15,124	16,391	15,578	16,412
All establishments	37,814	16,550	43,440	59,799	93,054	100,263	90,114	100,244
Durable goods	7,827	2,548	11,971	10,787	22,322	25,532	21,236	26,911
Nondurable goods	29,987	14,002	31,469	49,012	70,732	74,731	68,878	73,333

* Not adjusted to 1948 Census of Business figures. † Beginning in 1943, series excludes all sales of new motor vehicles.

Chain Stores vs. Independent Stores
(in millions of dollars)

	1929	1933	1941	1944	1946	1948	1949	1950	1951*
Chain store & mail order	10,412	6,618	12,434	15,486	21,111	27,892	27,088	29,079	12,244
Independent	38,047	17,879	43,056	53,337	79,187	102,150	101,096	111,169	47,060
Total sales	48,459	24,517	55,490	68,823	100,298	130,142	128,184	140,248	59,304
Chains as percent of total	21.5	27.0	22.4	22.5	21.0	21.4	21.1	20.7	20.6

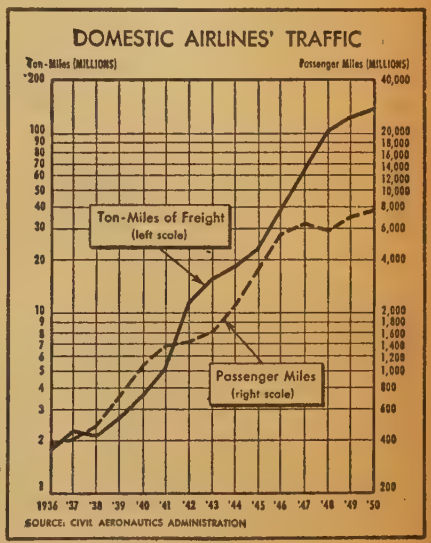
* First 5 months, not adjusted for seasonal variation, preliminary.

Monthly Average Railroad Carloadings
(in thousands of cars)

Source: Association of American Railroads.

Year	Total*	Coal, coke & ore	Grain & products	Less-than-carload merchandise
1920	3,760	1,095	154	751
1925	4,269	962	192	1,093
1929	4,402	1,001	200	1,100
1932	2,348	482	138	756
1939	2,826	676	162	653
1941	3,524	913	169	670
1942	3,568	1,008	181	465
1943	3,535	1,001	222	423
1944	3,674	1,043	213	459
1945	3,492	955	228	461
1946	3,445	882	208	528
1947	3,708	1,039	227	506
1948	3,643	1,044	209	464
1949	2,992	751	216	382
1950	3,242	875	205	359
1951†	3,176	812	204	330

* Includes forest products, livestock & miscellaneous group not listed separately. † First five months.



Class I Steam Railways*

Source: Association of American Railroads and the Interstate Commerce Commission.

	1920	1930	1940	1948	1949	1950
Av. first-track mileage operated	234,668	242,158	232,749	226,903	226,546	224,500
Passengers carried (thousands)	1,234,862	703,598	452,921	642,781	554,430	466,753
Passenger revenue (thousand dollars)	1,286,613	728,488	416,897	964,303	860,744	813,417
Average journey per passenger (miles)	37.94	38.11	52.46	64.1	63.3	68.0
Total tons revenue freight carried (thousands)	2,259,983	2,063,078	1,843,290	2,847,897	2,303,080	2,587,013
Freight revenue (thousand dollars)	4,328,298	4,083,242	3,537,150	7,976,285	7,048,240	7,817,263
Operating revenues (thousand dollars)	6,178,439	5,281,197	4,296,601	9,671,722	8,580,142	9,473,003
Operating expenses (thousand dollars)	5,827,591	3,930,929	3,089,417	7,472,035	6,891,819	7,059,273
Net railways operating income (thousand dollars)	17,227	868,879	682,134	1,002,011	686,487	1,039,705
Net capitalization (million dollars)	16,994	19,066	17,630	15,467	15,639	15,600
Average number of employees (all carriers)	2,022,832	1,487,839	1,026,848	1,326,597	1,191,444	1,220,784
Total compensation per year (thousand dollars)	3,681,801	2,550,789	1,964,125	4,768,828	4,419,433	4,593,693
Roads under receivership and trusteeship†	61	30	103	46	44	(‡)
Miles of roads under rec. and trusteeship†	16,290	9,486	75,270	13,859	13,058	(‡)
Number of locomotive units—Dec. 31	64,746	56,582	41,721	41,851	40,691	40,494
Number of freight-train cars—Dec. 31	2,350,707	2,305,741	1,675,080	1,783,363	1,777,661	1,744,625
Number of pass.-train cars—Dec. 31	53,501	52,130	37,817	39,142	37,771	37,143

* Yearly operating revenues above one million dollars. † Class I, II and III railroads. ‡ Data not available.

WHAT SERVICES CONTRIBUTE

Manufacturing and agriculture can grow steadily more efficient only because they take advantage of various types of business, professional and scientific services. For example, mass production would be impossible without modern accounting systems; and large-scale agriculture could hardly exist without scientific crop and weather services.

Personal services are the remaining stronghold of small, individual enterprise. The service industries are the only ones where small business produces half the total output. With growing consumer acceptance, these trades promise to offer a continued incentive for independent, small ventures.

But there are big as well as small businesses among the service industries. Financing of the nation's business and much of its government is made possible by the highly organized financial services. Insurance is another field where big as well as small firms fill our steadily increasing demand for all forms of protection.

Through ownership of stocks, bonds, life insurance and savings accounts we all contribute and have a stake in this financing of our complex economic machinery. Contrary to the steady advance of almost all other indices, however, stock and bond yields to the investor have declined steadily throughout the war and have only in recent years begun to stabilize.

Number of Service Establishments and Places of Amusement, 1939 and 1948

Source: U. S. Department of Commerce.

Kind of business	No. of establishments 1939	1948
PERSONAL SERVICES:		
Barber shops	117,998	91,993
Barber and beauty shops	4,199	2,591
Baths and masseurs	1,600	1,305
Beauty parlors	83,071	74,497
Cleaning and dyeing plants	12,616	25,534
Costume and dress suit rental	417	510
Diaper service	n.a.	384
Funeral service, crematories	18,196	18,675
Fur repair and storage	2,180	2,334
Hat cleaning	1,228	1,426
Laundries, all types	22,736	19,182
Linen supply service	718	1,176
Photographic studios	10,957	14,712
Rug cleaning and repairing	1,012	1,517
Shoe repair shops	50,115	44,151
Shoe shine parlors	7,968	2,962
BUSINESS SERVICES:		
Advertising agencies	1,628	3,279
Auctioneers	970	670
Blueprinting and photostat	500	672
Coin-operated machine	1,554	1,302
Consumer credit reporting	2,576	2,652
Detective agencies	280	603
Disinfecting, exterminating	952	1,393
Employment agencies	1,424	2,231
Interior decorating	461	601
Mailing services	1,433	1,394
News syndicates	n.a.	77
Outdoor advertising	649	798
Photo finishing laboratories	1,201	1,703
Public stenographers	1,329	1,036
Sign painting shops	5,391	4,283
Telephone answering service	n.a.	367
Window cleaning service	823	1,260
Window display services	215	279
REPAIR SERVICES:		
Automotive repair services and garages	78,881	95,544
Automobile rentals	648	1,011
Automobile storage, parking	11,095	8,533
Armature rewinding shops	978	2,023
Bicycle repair shops	1,601	1,283
Blacksmith shops	16,797	8,249
Electrical repair shops	15,644	19,440
Jewelry, watch, clock repair	12,485	12,750
Leather goods repair	2,168	560
Locksmiths and gunsmiths	2,252	1,518
Musical instrument repair	982	789
Radio repair	10,732	12,558
Refrigerator repair	1,297	2,531
Saw, knife and tool sharpening and repair	1,451	1,304
Sewing machine repair	355	488
Stove repair	365	207
Taxidermists	363	211
Tool repair	1,451	1,304
Typewriter repair	618	638
Upholstery, furniture	9,685	10,297
Welding shops	4,118	3,536
OTHER SERVICES:		
Hotels	27,987	29,650
Tourist courts and camps	13,521	25,919
AMUSEMENT PLACES:		
Amusement devices	1,093	1,604
Amusement parks	245	368
Bands, orchestras, entertainers	550	2,026
Bathing beaches (not municipal)	344	261
Bicycle rentals	247	147
Billiard and pool parlors	12,998	9,661
Boat and canoe rental	1,382	1,587
Bowling alleys	4,646	4,505
Clubs, baseball	276	357
Clubs, football	n.a.	21
Dance halls, studios, schools	2,191	1,074
Race tracks, automobile	36	112
Race tracks, dog	11	15
Race tracks, horse	45	71
Riding academies	840	709
Shooting galleries	324	181
Skating rinks, ice	59	42
Skating rinks, roller	1,134	1,382
Sports and athletic fields	188	211
Sports promoters, commercial operators	n.a.	6,518
Swimming pools (not municipal)	668	499
Theaters, motion pictures	15,115	17,689
Theaters and theatrical producers	231	1,426

NOTE: n.a.—not available.

Hotels

Source: Horwath & Horwath.

Year	Percent of rooms occupied	Average sale per occupied room ($)	Restaurant sales (1929 = 100)
1929	70	4.04	100
1933	51	2.88	49
1939	62	3.31	90
1945	91	4.06	200
1947	90	4.77	230
1948	86	5.27	228
1949	82	5.47	219
1950	81	5.71	223
1951*	80	6.04	236

*First 6 months.

Cost of Advertising Facilities

Source: U. S. Dept. of Commerce.

Monthly average	Radio (in thousands of dollars)	Magazine
1933	2,626	8,155
1939	6,926	12,587
1941	8,841	15,007
1945	15,896	25,531
1947	15,910	37,340
1948	16,583	42,166
1949	15,650	41,070
1950	15,293	43,675
1951*	15,915	47,031

* Average first 6 months, preliminary.

New York Stock Exchange Sales

Source: Commercial & Financial Chronicle, New York Stock Exchange.

Year	Stocks, millions of shares	Bonds, par val. (millions of dollars) Total	Corporate	U. S. government	State, municipal, foreign
1919	317	3,809	622	2,901	286
1929	1,125	2,982	2,182	142	658
1932	425	2,967	1,642	570	755
1939	262	2,046	1,480	311	255
1941	171	2,112	1,929	20	163
1943	279	3,255	3,130	4	120
1945	378	2,262	2,148	8	106
1947	254	1,076	970	3	102
1948	302	1,014	925	1	87
1949	272	818[2]	725[3]	(4)	93[5]
1950	525	1,112[2]	1,008[3]	2	102[5]
1951[1]	275	539[2]	480[3]	2	57[5]

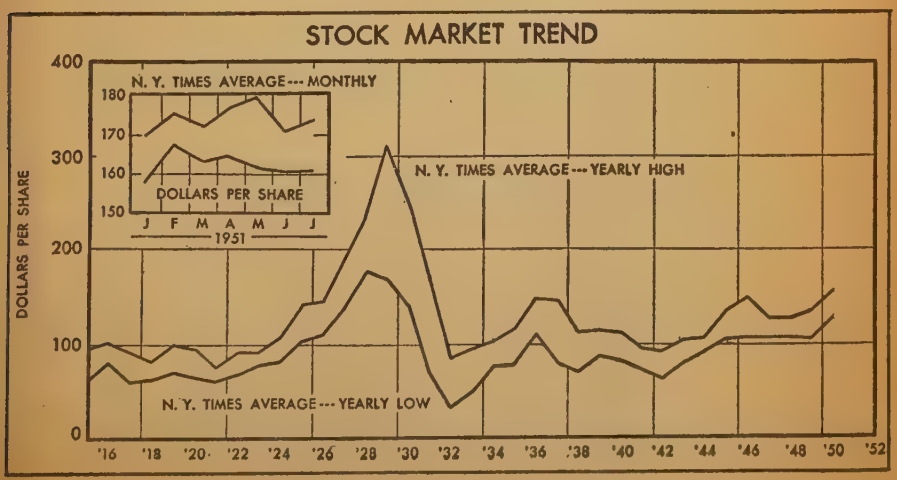
[1] Jan. 1–July 31. [2] Includes International Bank. [3] Railroad and industrial. [4] Less than 1. [5] Foreign.

Stock Prices per Share*

Dow-Jones & Co., Inc. Averages
(in dollars)

Year	Total (65)	Industrials (30)	Public utilities (15)	Railroads (20)
1929	125.43	311.24	104.48	159.66
1932	26.82	64.57	26.89	27.46
1937	58.08	166.36	28.17	49.51
1939	48.01	142.66	24.43	30.01
1941	41.22	121.82	18.02	28.36
1942	36.04	107.20	12.63	26.38
1943	46.39	134.81	19.82	33.71
1945	63.72	169.82	32.15	56.56
1947	63.31	177.58	35.06	48.14
1948	66.32	179.95	34.03	56.73
1949	64.37	179.48	36.44	47.77
1950	77.69	215.47	41.20	60.72
1951†	92.35	250.72	42.53	82.47

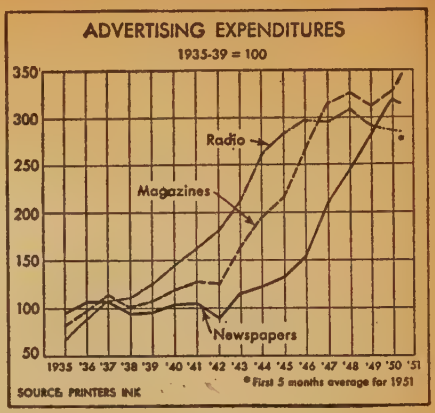
* Averages of daily closings.
† First 6 months.



Advertising Media, 1950

Source: Printers' Ink.

Medium	Volume (in millions of dollars)	% of total
Newspapers	2,063.2	36.3
Radio	667.1	11.7
Magazines	514.9	9.0
Direct mail	803.2	14.1
Business papers	251.1	4.4
Outdoor	142.5	2.5
Farm papers	21.2	.4
Television	185.0	3.3
Miscellaneous	1,043.1	18.3
Total	5,691.3	100.0



Stock and Bond Yields—Percent

Year	Bonds							Stocks				
			Corporate (Moody's Investors' Service)				Municipal (Standard and Poor's Corp.) (15)	Preferred (Standard and Poor's Corp.) (15)	Common (Moody's Investors' Service)			
	U. S. Treasury (Treasury Dept.)*	Municipal (Bond Buyer) (20 cities)	Total	Industrial	Railroad	Public utility			Total (200)†	Industrial (125)	Railroad (25)	Public utility (24)
1929	.....	4.31	5.21	5.31	5.18	5.14	4.27	5.12	3.5	4.0	4.4	2.1
1932	.....	4.79	6.87	6.71	7.61	6.30	4.65	6.13	7.4	7.3	6.3	7.5
1939	.....	2.83	3.77	3.30	4.53	3.48	2.76	4.17	4.2	3.9	3.7	5.3
1941	.....	2.14	3.34	2.95	3.95	3.11	2.10	4.08	6.2	6.3	6.5	8.0
1942	2.46	2.26	3.34	2.96	3.96	3.11	2.36	4.31	6.6	6.4	7.7	9.8
1943	2.47	1.93	3.16	2.85	3.64	2.99	2.06	4.06	4.8	4.5	6.9	6.8
1945	2.37	1.50	2.87	2.68	3.06	2.89	1.67	3.70	4.1	4.0	5.5	5.0
1947	2.25	1.89	2.86	2.67	3.11	2.78	2.01	3.79	5.1	5.0	6.4	5.3
1948	2.44	2.37	3.08	2.87	3.34	3.03	2.40	4.15§	5.8	5.9	6.0	5.9
1949	2.31	2.15	2.96	2.74	3.24	2.90	2.21	3.97§	6.6	6.8	8.5	5.9
1950	2.32	1.90	2.86	2.66	3.10	2.82	1.97	3.85§	6.3	6.5	6.5	5.7
1951‡	2.52	1.88	3.00	2.82	3.17	3.00	1.91	4.03§	6.4	6.6	6.3	5.8

* Taxable, 15 years and over. † Includes 15 banks and 10 insurance stocks. ‡ Average of first 6 months.
§ Data for Aug.–Sept. based on 14 stocks; from Oct., 1948 based on 11 stocks.

Note: Figures in parentheses represent number of issues.

Federal Reserve System, All Member Banks, Principal Assets and Liabilities*

(all money figures in millions of dollars)

Source: Federal Reserve Board.

	1925	1930	1935	1940	1945	1949	1950	1951†
Loans	21,996	23,870	12,175	15,321	22,775	36,230	44,705	47,072
U. S. Gov't obligations	3,728	4,125	12,268	15,823	78,338	56,883	52,365	49,249
Other security investments	5,160	6,864	5,541	5,982	6,070	8,414	10,355	10,522
Total deposits‡	34,250	37,029	38,454	56,430	129,670	123,885	133,089	128,712
Demand deposits	19,124	18,796	21,056	33,829	91,820	82,628	90,306	87,979
Time deposits	10,557	13,012	10,041	12,178	24,210	29,160	29,336	29,531
Capital accounts	4,678	6,593	5,145	5,698	7,589	9,174	9,695	9,929
Number of banks	9,489	8,052	6,387	6,486	6,884	6,892	6,873	6,859

* End of year. † As of June 27. ‡ Includes interbank deposits, domestic and foreign, and U. S. Government and Postal Savings deposits.

Bank Debits to Deposit Accounts (except interbank)*

(in millions of dollars)

Source: Board of Governors of Federal Reserve System.

1929	935,030	1941	491,649	1946	944,811	1949	1,101,873
1932	322,365	1943	715,782	1947	1,005,568	1950	1,256,428
1939	389,677	1945	884,303	1948	1,116,936	1951†	585,242

* Includes 141 leading cities.
† First 5 months.

Money and Interest Rates

(Per cent per annum)

Source: Federal Reserve Board.

Year	Open market rate in New York City			Commercial loan rates		
	Prime commercial paper, 4 to 6 months*	Prime bankers' acceptances, 90 days*	Call loans, renewal rate†	New York City	7 other northern & eastern cities	11 southern & western cities
1929	5.85	5.03	7.61	5.76	5.82	5.93
1932	2.73	1.28	2.05	4.20	4.81	5.21
1933	1.73	.63	1.16	3.43	4.46	5.04
1934	1.02	.25	1.00	2.45	3.71	4.32
1935	.76	.13	.56	1.76	3.39	3.76
1937	.94	.43	1.00	1.73	2.88	3.25
1938	.81	.44	1.00	1.69	2.75	3.26
1939	.59	.44	1.00	2.07	2.87	3.51
1940	.56	.44	1.00	2.04	2.56	3.38
1941	.54	.44	1.00	1.97	2.55	3.19
1942	.66	.44	1.00	2.07	2.58	3.26
1943	.69	.44	1.00	2.30	2.80	3.13
1944	.73	.44	1.00	2.11	2.68	3.02
1945	.75	.44	1.00	1.99	2.51	2.73
1946	.81	.61	1.16	1.82	2.43	2.85
1947	1.03	.87	1.38	1.81	2.33	2.76
1948	1.44	1.11	1.55	2.22	2.57	2.95
1949	1.48	1.12	1.63	2.37	2.71	3.10
1950	1.45	1.15	1.63	2.36	2.68	3.19
1951‡	2.08	1.57	2.07	2.76	3.03	3.47

* Prevailing rate. † New York Stock Exchange; average of daily quotations. ‡ First six months.

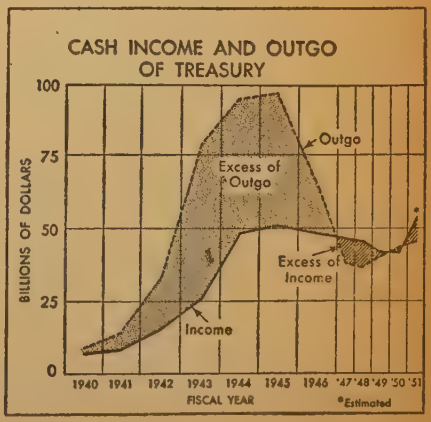
Assets and Liabilities, Active Banks in U. S., Dec. 31, 1950

(In millions of dollars except no. of banks)

Source: U. S. Treasury Department.

	All banks	Commercial banks*	Mutual savings banks
Number of banks	14,666	14,137	529
Loans and discounts	60,711	52,574	8,137
Investments	88,005	74,796	13,209
Cash and balances with other banks	41,236	40,439	797
Total assets	192,241	169,856	22,385
Capital, surplus, and undivided profits	13,916	11,669	2,247
Total deposits	176,120	156,089	20,031
Demand	118,794	118,773	21
Time	57,326	37,316	20,010

* Comprises national banks, state commercial banks and private banks.



Insurance Premiums and Losses

(in thousands of dollars)

Source: The Spectator, Philadelphia, Pa., and National Board of Fire Underwriters.

Type	1939	1943	1945	1946	1947	1948	1949	1950
Casualty, surety, and miscellaneous companies								
Net premiums written	1,191,838	1,703,797	1,631,649	2,011,262	2,591,065	3,071,838	6,222,861‡	6,813,660‡
Losses paid†	484,343	659,365	799,193	1,006,954	1,208,360	1,425,594	2,435,651‡	2,785,712‡
Fire and marine insurance business*								
Net premiums written	907,003	1,334,491	1,555,935	2,042,435	2,453,421	2,740,726	§	§
Losses paid†	404,800	560,175	748,664	896,153	1,064,316	1,195,472	§	§
Total fire losses in United States	313,499	380,235	455,329	561,487	692,635	711,114	667,536	688,460

* U. S. and outlying territories and possessions. † Includes adjustment expenses. ‡ Aggregate of 922 insurance companies excluding life insurance. § Included in above figures.

Life Insurance—Financial Condition and Policy Accounts of U. S. Companies

(in millions of dollars)

Source: Spectator Yearbook and Institute of Life Insurance.

Year	Assets (admitted) Dec. 31	Total income	Premium income	Payment to policyholders
1880	453	81	....	56
1890	771	197	158	90
1900	1,742	401	325	169
1910	3,876	781	593	387
1920	7,320	1,764	1,385	745
1929	17,482	4,337	3,350	1,962
1932	20,754	4,653	3,504	3,087
1939	29,243	5,453	3,825	2,642
1943	37,766	6,442	4,421	2,365
1945	44,797	7,674	5,249	2,667
1946	48,191	8,068	5,727	2,793
1947	51,743	9,114	6,762	2,971
1948	55,512	9,751	7,275	3,237
1949	59,630	10,376	7,635	3,478
1950	63,984	11,250	8,268	3,731

Life Insurance in Force in U. S.

(millions of dollars)

Source: Spectator Yearbook and Institute of Life Insurance.

Year	Ordinary	Group	Industrial	Total
1910	11,795	.....	2,977	14,772
1915	16,655	100	4,274	21,029
1925	52,910	4,247	12,318	69,475
1929	75,726	9,011	17,349	102,086
1930	78,622	9,828	17,963	106,413
1933	70,892	8,724	16,630	96,246
1935	70,710	10,283	17,471	98,464
1940	79,424	15,244	20,866	115,534
1945	101,925	22,373	27,677	151,975
1946	113,360	27,703	29,306	170,369
1947	123,022	32,795	30,406	186,223
1948	132,052	38,382	30,827	201,261
1949	139,576	42,207	31,983	213,766
1950	149,800	50,910	33,337	234,047

WHAT GOVERNMENT DOES AND COSTS

Ever since the Civil War, the role of government in the American economy has been steadily expanding. While probably more citizens have opposed this trend in the United States than in any other major nation, it has persisted. In the last two decades, first depression, and then war and its dislocations, have sharply accelerated the momentum of such government intervention.

Although many Americans have disliked and distrusted big government, federal power has grown steadily since the Civil War. It seems inevitable that the government will continue to accept an increasingly important role in the economy.

Post-war budgets have been higher than those in any pre-war period. In the peacetime budget for 1949–50, half the government's expenses were concerned with our national and international defense needs. The outbreak of the Korean war and the new rearmament effort starting in 1950 mean an even heavier military burden on the budget. How to distribute the remaining billions among tax relief, debt reductions and social programs will continue to be a major problem.

Our federal government has become so large, and its activities so numerous, that we are likely to overlook the many services performed at the state and local government levels. Nevertheless, in 1950 state and local expenditures amounted to $13.2 billion, or more than 21 per cent of total government outlay.

The costs of running the more than 155,000 government units in the nation are immense. The variety of uses to which the billions of dollars raised in taxes or by borrowing is put is bewildering. This section spreads the central facts and figures before you.

Receipts and Expenditures of the National Government (in millions of dollars)

Source: U. S. Treasury Department.

Yearly average or year ended June 30	Receipts						Expenditures					
	Customs (including tonnage tax)[1]	Internal revenue		Other receipts	Total receipts	Net receipts[2]	Department of the Army[3]	Department of the Navy	Interest on public debt	All other	Total expenditures[4]	Surplus (+) or deficit (−)
		Income and profits tax	Other									
1789–1800	6	.....	.....	.....	7	7	2	.....	3	1	6	.....
1801–1810	12	.....	.....	.....	13	13	2	1	4	2	9	+4
1811–1820	16	.....	2	3	21	21	11	5	5	3	24	−3
1821–1830	20	.....	.....	2	22	22	4	3	4	5	16	+6
1831–1840	20	.....	.....	10	30	30	8	5	.....	11	24	+6
1841–1850	24	.....	.....	3	27	27	13	7	1	11	32	−5
1851–1860	54	.....	.....	6	60	60	16	12	3	29	60	.....
1861–1865	69	17	55	20	161	161	548	65	35	36	684	−523
1866–1870	179	51	171	46	447	447	128	28	135	86	377	+70
1871–1875	186	8	113	30	337	337	40	23	112	112	287	+50
1876–1880	146	.....	117	25	288	288	37	16	100	102	255	+33
1881–1885	202	.....	132	33	367	367	43	16	64	135	258	+109
1886–1890	216	.....	127	32	375	375	40	18	44	177	279	+96
1891–1895	177	.....	150	26	353	353	50	29	30	255	364	−11
1896–1900	185	.....	207	43	435	435	111	48	38	260	457	−22
1901–1905	260	.....	255	44	559	559	133	86	28	288	535	+24
1906–1910	311	4	257	56	628	628	169	113	23	334	639	−11
1915	210	20	336	72	698	698	202	142	23	394	761	−63
1917	226	360	450	89	1,125	1,125	378	240	25	1,335	1,978	−853
1918	180	2,314	872	299	3,665	3,665	4,870	1,279	190	6,358	12,697	−9,032
1920	323	3,945	1,460	966	6,694	6,694	1,622	736	1,020	3,025	6,403	+291
1929	602	2,331	607	493	4,033	4,033	426	365	678	1,830	3,299	+734
1933	251	746	858	225	2,080	2,021	435	349	689	3,150	4,623	−2,602
1937	486	2,163	2,434	211	5,294	4,979	628	557	866	5,705	7,756	−2,777
1939	319	2,189	2,972	188	5,668	5,104	695	673	941	6,657	8,966	−3,862
1942	389	7,960	5,033	295	13,677	12,696	14,326	8,580	1,260	10,021	34,187	−21,490
1943	324	16,094	6,050	934	23,402	22,202	42,526	20,888	1,808	14,400	79,622	−57,420
1944	431	34,655	7,030	3,325	45,441	43,892	49,438	26,538	2,609	16,730	95,315	−51,423
1945	355	35,173	8,729	3,493	47,750	44,762	50,490	30,047	3,617	14,549	98,703	−53,941
1946	435	30,885	9,426	3,492	44,238	40,027	27,987	15,161	4,722	12,833	60,703	−20,676
1947	494	29,305	10,074	4,635	44,508	40,043	9,172	5,597	4,958	19,562	39,289	+754
1948	422	31,171	10,682	3,824	46,099	42,211	7,698	4,285	5,211	16,597	33,791	+8,419
1949	384	29,482	10,825	2,082	42,773	38,246	7,862	4,435	5,339	20,730	40,057	−1,811
1950	423	28,263	11,186	1,439	41,311	37,045	5,789	4,130	5,750	20,977	40,167	−3,122
1951, est.	600	35,159	12,714	1,334	49,807	44,512	(5)	(5)	5,625	20,521	47,210	−2,699
1952, est.	620	46,025	13,676	1,618	61,939	55,138	(5)	(5)	5,800	24,937	71,594	−16,456

[1] Beginning 1932, tonnage tax incl. in "Other receipts." [2] Net receipts equal total receipts less (a) appropriations to federal old-age and survivors' insurance trust fund beginning fiscal year 1937 and (b) refunds of receipts beginning fiscal year 1931. [3] Formerly War Department. [4] Includes Air Force: 1949—$1,690,460,724; 1950—$3,520,632,580. [5] Department of Defense: 1951—21,063,983,509; 1952—40,856,940,116.

Summary of Internal Revenue Collections

(in millions of dollars)

Source: U. S. Treasury Department.

Fiscal year ending	1939	1941	1943	1944	1945	1946	1947	1948	1949	1950	1951
Total internal revenue collections	5,162	7,352	22,369	40,120	43,800	40,672	39,108	41,865	40,463	38,957	50,446
Corporation income and excess profits	1,156	2,053	9,669	14,767	16,028	12,553	9,676	10,174	11,554	10,854	14,388
Total individual income tax and unemployment taxes	1,769	2,344	4,448	19,999	20,813	20,405	21,367	23,379	20,528	19,798	26,625
Individual income and old-age insurance	1,559	2,105	4,158	19,551	20,342	19,942	20,802	22,611	19,739	19,027	25,808
Unemployment insurance	101	101	156	183	186	179	186	209	226	223	237
Railroad retirement	109	138	211	265	285	284	380	560	563	548	580
Total miscellaneous internal revenue	2,237	2,955	4,571	5,353	6,960	7,713	8,064	8,311	8,382	8,305	9,433
Capital stock tax	127	167	329	381	372	352	2	2	6	(1)	(2)
Estate and gift taxes	361	407	447	511	643	677	779	899	797	706	730
Alcoholic beverage taxes	588	820	1,423	1,618	2,310	2,526	2,475	2,255	2,211	2,219	2,547
Tobacco taxes	580	698	924	988	932	1,166	1,238	1,300	1,322	1,328	1,380
Stamp taxes	41	39	45	51	66	88	80	79	73	85	93
Manufacturers' and retailers' excise taxes	397	617	670	729	1,207	1,415	1,940	2,119	2,221	2,245	2,841
Miscellaneous taxes	144	207	732	1,075	1,430	1,490	1,551	1,656	1,753	1,721	1,843

[1] Less than 1. [2] Repealed for years after June 30, 1945. Beginning with July, 1950, included under "Miscellaneous."

State Revenues and Expenditures

(in millions of dollars)

Source: U. S. Bureau of the Census.

	1940	1950
Total revenues	5,145	11,863
Total expenditures*	5,421	13,183
Operation	1,745	5,457
Aid paid to local governments	1,627	4,011
Contributions to trust funds and state enterprises	900	1,239

* Includes provision for debt retirement and interest payments.

Tax Revenues

(in millions of dollars)

Source: The Conference Board; Bureau of the Census

Fiscal year	Total	Federal	State	Local
1916	2,643	708	364	1,571
1920	9,165	5,689	636	2,840
1925	7,892	2,974	1,107	3,811
1930	10,277	3,479	1,780	5,018
1935	9,736	3,551	1,886	4,299
1940	12,907	4,910	3,313	4,684
1945	53,050	42,601	5,561	4,888
1949	53,576	37,810	8,349	7,417
1950	54,626	37,684	8,940	8,002

Functional Distribution of State Employment and Payroll: April, 1951

Source: U. S. Department of Commerce.

Function	Employees (in thousands)	Pay roll (in millions)
Police	18	$ 4.8
Correction	34	8.5
Public welfare	37	8.3
Schools	318	63.6
Highways	169	37.2
Health	26	6.2
Hospitals and institutions for the handicapped	181	34.6
Waterways and other nonhighway transportation	3	.9
Natural resources	73	15.7
Employment security	43	12.0
State liquor stores	13	2.9
All other	125	34.4
Total	1,042	228.5

HOW WE WORK

One of the most important changes which has occurred in the American economy during the past decade has been the fundamental change in our national perspective on employment. Where the 1930's were haunted by the persistent spectre of mass unemployment, not only World War II but also the postwar period brought with them an era of steady employment, ever higher wages and benefits.

The outbreak of war in Korea found us with practically full employment. Contrary to our position at the beginning of World War II, there was practically no pool of unemployed, and there were much smaller reserves of employable women, aged persons, and handicapped workers. Manpower is a big problem in the new mobilization effort.

Employment and Unemployment (in millions of persons)

Sources: U. S. Bureau of Labor Statistics, U. S. Bureau of the Census, and U. S. Bureau of Agricultural Economics.
Note: Data prior to 1940 estimated by Research Institute of America from various Government sources.

Activity	1929	1932	1941	1943	1945	1946	1947	1948	1949	1950	1951[1]
Total employment	46.7	37.9	50.4	54.5	52.8	55.2	58.0	59.4	58.7	60.0	59.8
Non-agricultural employment	36.8	26.3	41.3	45.4	44.2	46.9	49.8	51.4	50.7	52.5	53.4
Manufacturing	10.5	6.8	13.0	17.4	15.2	14.5	15.2	15.3	14.2	14.9	15.9
Durable goods	...	...	...	6.5	6.3	6.8	8.3	8.3	7.5	8.0	8.9
Nondurable goods	...	...	...	10.9	8.9	7.7	6.9	7.0	6.7	6.9	7.0
Mining	1.1	.7	.9	.9	.8	.9	.9	1.0	.9	.9	.9
Construction	1.5	1.0	1.8	1.6	1.1	1.7	2.0	2.2	2.2	2.3	2.4
Transportation and public utilities	3.9	2.8	3.2	3.6	3.9	4.0	4.1	4.2	4.0	4.0	4.1
Trade	6.4	4.9	7.6	7.3	7.7	9.0	9.2	9.5	9.4	9.5	9.6
Retail	...	...	....	5.7	5.9	7.0	6.8	7.0	6.9	7.0	7.0
Wholesale	...	...	...	1.6	1.8	2.0	2.4	2.5	2.5	2.5	2.6
Finance	1.4	1.3	1.5	1.4	1.4	1.6	1.6	1.7	1.8	1.8	1.9
Service	3.1	2.7	3.6	3.8	3.9	4.4	4.8	4.8	4.8	4.8	4.7
Government	3.1	3.2	4.6	6.0	6.0	5.6	5.4	5.6	5.8	5.9	6.2
Other, self-employed, domestic	6.9	5.1	5.1	3.4	4.2	5.2	6.6	7.1	7.6	8.4	7.7
Agricultural employment	9.9	9.6	9.1	9.1	8.6	8.3	8.2	8.0	8.0	7.5	6.5
Unemployment	2.0	12.7	5.5	1.1	1.1	2.3	2.2	2.0	3.4	3.1	2.1
Public works	...	...	1.9	[2]	...	...	...	...	...	...	...
Total civilian labor force	48.7	50.6	55.9	55.5	53.9	57.5	60.2	61.4	62.1	63.1	61.9
Armed forces	.3	.3	1.5	8.9	11.3	3.3	1.4	1.3	1.5	1.5	[3]
Total labor force	49.0	50.9	57.4	64.4	65.2	60.8	61.6	62.7	63.6	64.6	[3]

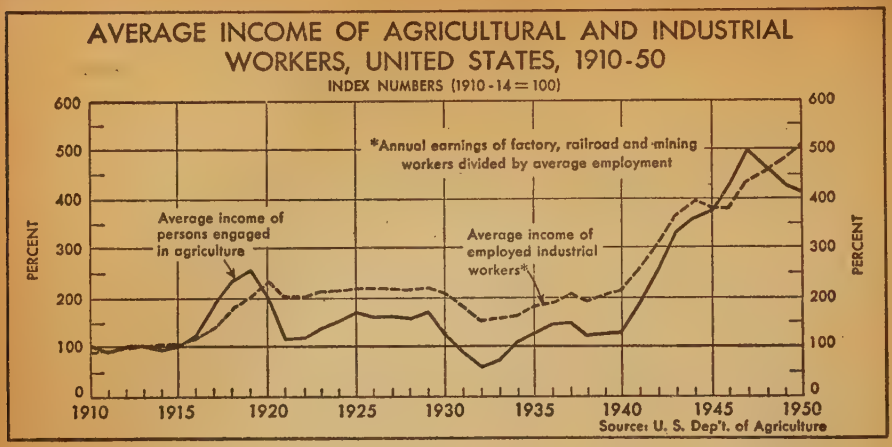
[1] Average of first 5 months not adjusted for seasonal variation. [2] Negligible. [3] Beginning January, 1951, data on Armed Forces and total labor force not available.

Minutes of Working Time Required for Purchase Per Pound of Selected Foods

Source: U. S. Bureau of Labor Statistics.

Food	United States Mar. 1950	Chile Dec. 1949	France Apr. 1950	Germany May 1950	Great Britain Apr. 1950	Italy Apr. 1950	Sweden Feb. 1950	U.S.S.R. Apr. 1950
Flour, wheat	4	13	17	11	7	17	7	36
Pastes (spaghetti, macaroni)	9	...	30	...	18	23	...	62
Rice	7	16	35	...	17	18	...	125
Bread	6	14[1]	9	10	6	15	10[2]	19
Beef, average	28	...	...	...	...	118	39	182
Pork, chops	29	...	90	88	...	120[3]	49	304
Lamb, leg	30	78[4]	146	...	...	...	55	194[4]
Chickens	18	...	...	...	...	...	39[5]	228
Fish	19	...	38[6]	29	...	66	18	150[7]
Butter	31	167	169	129	37	183	60	373
Cheese	22	96	164	...	18	133	28	...
Milk, fresh[9]	8	22	20	16	15	23	8	52
Eggs[10]	22	105	96	105	66	102	54	291
Fresh apples	5	...	24	22	...	...	19	111
Cabbage	3	3	15	10	...	...	4	16
Potatoes	2	6	9	4	3	8	3	11
Dried navy beans	6	17[8]	34	...	18	20[8]	...	...
Coffee	33	...	159	631	66	243	84	694
Tea	54	198	...	...	77	..	...	1,334
Lard	7	108	71	...	22	66	...	...
Sugar	4	13	25	26	9	43	9	122

[1] French bread. [2] Average. [3] Average all pork. [4] Lamb average. [5] Hen. [6] Cod, salted. [7] Herring. [8] Kidney beans. [9] Quart. [10] Dozen. U. S. working time, 7 minutes.



Average Earnings and Hours Worked Per Week in Manufacturing Industries

Source: U. S. Department of Labor.

Industry	1939 Earnings	1939 Hours worked	1945 Earnings	1945 Hours worked	1947 Earnings	1947 Hours worked	1949 Earnings	1949 Hours worked	1950 Earnings	1950 Hours worked	1951[2] Earnings	1951[2] Hours worked
All manufacturing[1]	$24.23	37.7	$45.08	43.4	$54.14	40.1	$54.92	39.2	$59.33	40.5	$64.23	41.0
Durable goods	26.90	38.0	49.81	44.1	57.11	40.5	58.03	39.5	63.32	41.2	68.71	41.7
Primary metal industries	n.a.	n.a.	n.a.	n.a.	61.03	40.1	60.78	38.3	67.24	40.8	74.54	41.6
Iron and steel foundries	n.a.	n.a.	n.a.	n.a.	58.45	40.7	55.09	37.2	65.32	41.9	72.32	43.1
Nonferrous foundries	n.a.	n.a.	n.a.	n.a.	59.96	40.0	60.92	39.0	67.65	41.5	72.92	42.1
Fabricated metal products	n.a.	n.a.	n.a.	n.a.	56.68	40.6	57.82	39.6	63.42	41.4	68.75	41.9
Hand tools	n.a.	n.a.	n.a.	n.a.	56.07	40.9	54.54	38.6	61.31	41.2	69.79	43.1
Hardware	n.a.	n.a.	n.a.	n.a.	54.26	40.4	56.28	39.3	62.65	41.6	65.78	41.4
Structural metal products	n.a.	n.a.	n.a.	n.a.	58.17	41.2	59.90	40.5	63.29	41.1	70.20	42.3
Electrical machinery	27.50	38.6	47.15	44.1	55.66	40.1	56.96	39.5	60.83	41.1	65.21	41.4
Machinery, except electrical	29.27	39.3	53.02	45.8	60.52	41.2	60.44	39.5	67.21	41.8	75.57	43.6
Transportation equipment[3]	30.51	38.9	56.10	43.7	61.58	39.0	64.95	39.2	71.18	41.0	74.07	40.7
Automobiles	32.91	35.4	51.99	41.3	61.86	38.4	65.97	38.9	73.25	41.2	73.96	39.6
Lumber and wood products	n.a.	n.a.	n.a.	n.a.	51.38	41.5	51.72	40.6	55.31	41.0	56.87	40.9
Furniture & fixtures	n.a.	n.a.	n.a.	n.a.	43.99	41.1	49.48	40.1	53.67	41.9	57.87	41.9
Stone, clay and glass	24.30	37.6	40.60	43.1	53.46	40.9	54.45	39.8	59.20	41.2	64.08	41.7
Nondurable goods	22.11	37.4	38.87	42.4	50.61	39.6	51.41	38.8	54.71	39.7	58.40	40.0
Textile—mill products	17.09	36.6	31.56	41.1	45.59	39.2	44.83	37.7	48.95	39.6	53.42	40.4
Cotton, silk, synthetic fibers[4]	14.47	36.7	28.62	41.3	44.36	39.4	42.89	37.2	48.00	40.1	53.24	41.4
Woolen and worsted goods	19.50	36.4	36.81	41.6	52.45	40.1	51.19	38.9	54.01	39.8	58.39	40.1
Apparel and other finished textiles	18.44	34.5	32.15	36.9	42.79	36.2	41.89	35.8	43.68	36.4	47.00	37.1
Leather	19.42	36.2	35.58	41.1	41.66	37.2	41.61	36.6	44.56	37.6	48.28	38.2
Food	24.80	40.3	40.10	44.9	51.87	42.0	53.58	41.5	56.07	41.5	59.53	41.3
Tobacco	17.09	35.4	32.27	41.7	36.50	38.1	37.25	37.1	41.08	37.9	42.99	37.6
Paper	24.08	40.1	41.11	45.9	55.25	42.8	55.96	41.7	61.14	43.3	65.96	43.6
Printing and publishing	32.91	37.4	47.93	41.4	66.73	39.3	70.28	38.7	72.98	38.8	75.05	38.8
Chemicals	25.97	39.5	44.66	44.5	56.23	41.5	58.63	41.0	62.67	41.5	67.46	41.9
Petroleum and coal	33.11	36.5	56.71	46.2	69.23	40.7	72.36	40.4	75.01	40.9	79.42	40.8
Rubber	28.26	36.9	50.28	44.0	56.78	39.0	57.79	38.3	64.42	40.9	65.47	39.8

[1] Average weekly earnings in 1919 = $23.20, 1929 = $26.40, 1932 = $17.86. Average hours worked per week in 1914 = 51.0, 1919 = 47.8, 1929 = 45.7, 1932 = 38.2. [2] Average of first four months. [3] Figures for 1939 and 1945 exclude automobiles. [4] Figures for 1939 and 1945 are for cotton goods only. NOTE: Data prior to 1947 not strictly comparable; partially estimated by Research Institute. Designation n.a. means not available.

U. S. Labor Force, 1940 (in thousands)

Source: U. S. Department of Commerce.

All occupations	52,020
Professional and semiprofessional workers	3,558
Actors and actresses	19
Architects	22
Artists and art teachers	62
Authors, editors, and reporters	78
Chemists, assayers, and metallurgists	60
Clergymen	140
College presidents, professors, and instructors	76
Dentists	71
Engineers	262
Lawyers and judges	180
Musicians and music teachers	162
Osteopaths	6
Pharmacists	83
Physicians and surgeons	166
Social and welfare workers	75
Teachers, not elsewhere classified	1,076
Trained nurses and student nurses	371
Veterinarians	11
Librarians	39
Dancers, showmen, and athletes	54
Designers and draftsmen	112
Aviators	6
Chiropractors	11
Optometrists	10
Photographers	38
Radio and wireless operators	12
Religious workers	35
Surveyors	16
Lab. technicians & assistants	67
Farmers and farm managers	5,303
Proprietors, managers, and officials, excl. farms	3,854
Postmasters, and misc. gov't officials	240
Clerical, sales, and kindred workers	8,270
Bookkeepers, accountants, and cashiers	931
Stenographers, typists, and secretaries	1,175
Insurance agents and brokers	249
Traveling salesmen and sales agents	633
Craftsmen, foremen, and kindred workers	5,952
Carpenters	766
Electricians	227
Foremen, not elsewhere classified	576
Machinists, millwrights, and tool makers	662
Mechanics and repairmen	974
Painters, paperhangers, and glaziers	480
Operatives and kindred workers	9,477
Domestic service workers	2,349
Protective service workers	715
Guards & watchmen	236
Firemen, fire department	79
Policemen, sheriffs, and marshals	177
Service workers, except domestic and protective	3,116
Barbers, beauticians, and manicurists	440
Charwomen, janitors, and porters	631
Waiters and bartenders	733
Cooks, except family	336
Elevator operators	85
Practical nurses & midwives	109
Boarding house keepers	112
Farm laborers and foremen	3,531
Laborers, excl. farm and mine	4,612

Age of Persons in the Labor Force

(in thousands)

Source: U. S. Department of Commerce.

	1940*				1951†			
Age	Male	%	Female	%	Male	%	Female	%
14 to 19	2,619	7	1,395	11	3,582	8	2,345	12
20 to 24	5,035	12	2,688	21	3,939	9	2,714	14
25 to 44	18,817	47	6,107	47	20,154	45	8,462	43
45 to 64	11,954	29	2,550	19	14,112	32	5,398	28
Over 65	1,859	5	275	2	2,531	6	546	3
Total	40,284	100	13,015	100	44,316	100	19,467	100

* Week of March 24.
† Week of June 3.

Work Injuries in Industry (in thousands)

Sources below: U. S. Bureau of Labor Statistics.

Industry	1936	1941	1944	1947	1948	1949	1950*
Manufacturing	312	453	787	539	469	381	426
Trade—Wholesale and retail	133	297	274	361	347	329	335
Public utilities	14	21	19	28	27	27	24
Construction	284	500	100	152	193	183	205
Railroads	38	48	92	72	63	46	177
Miscellaneous transportation	28	130	135	135	133	126	
Mining and quarrying	103	97	92	93	87	70	72
Services, govt. and misc.	232	368	419	382	360	368	373
Agriculture	265	270	312	298	340	340	340
All industries	1,407	2,180	2,230	2,059	2,019	1,870	1,952

* Preliminary.

Labor Turnover in Manufacturing Establishments

(Monthly Average Rate Per 100 Employees)

	1929*	1932	1933	1937	1941	1943	1945	1947	1948	1949	1950	1951†
Accession rate	5.7	3.3	5.4	3.6	5.4	7.5	6.3	5.1	4.4	3.5	4.4	4.7
Separation rate	6.3	4.3	3.8	4.4	3.9	7.3	8.3	4.8	4.5	4.3	3.5	4.3
Discharges	.8	.2	.2	.2	.3	.6	.6	.4	.4	.2	.3	.3
Layoffs	2.1	3.5	2.7	3.0	1.3	.6	2.3	.9	1.3	2.4	1.1	1.0
Quits	3.4	.7	.9	1.3	2.0	5.2	5.1	3.4	2.8	1.5	1 9	2.4
Miscellaneous‡	..	..	..	..	.4	.9	.3	.1	.1	.1	.2	.5

* Average for 7 months, June–December. † First 5 months' average.
‡ Includes separations caused by death, permanent disability, retirement on pension, and extended leave. Beginning September 1940, workers leaving to enter the Army or Navy are included. Prior to January 1940, miscellaneous separations were combined with data for quits.

Strikes and Lockouts

Year	Strikes and lockouts Number	Workers involved Number (thousands)	Man-days idle Number (thousands)
1885	695	258	n.a.
1890	1,897	373	n.a.
1895	1,255	407	n.a.
1900	1,839	568	n.a.
1905	2,186	302	n.a.
1915	1,593	n.a.	n.a.
1917	4,450	1,227	n.a.
1919	3,630	4,160	n.a.
1920	3,411	1,463	n.a.
1921	2,385	1,099	n.a.
1922	1,112	1,613	n.a.
1923	1,553	757	n.a.
1924	1,249	655	n.a.
1925	1,301	428	n.a.
1926	1,035	330	n.a.
1927	707	330	26,219
1928	604	314	12,632
1929	921	289	5,352
1930	637	183	3,317
1931	810	342	6,893
1932	841	324	10,502
1933	1,695	1,168	16,872
1934	1,856	1,467	19,592
1935	2,014	1,117	15,456
1936	2,172	789	13,902
1937	4,740	1,861	28,425
1938	2,772	688	9,148
1939	2,613	1,171	17,812
1940	2,508	577	6,701
1941	4,288	2,363	23,048
1942	2,968	840	4,183
1943	3,752	1,981	13,501
1944	4,956	2,116	8,721
1945	4,750	3,470	38,025
1946	4,985	4,600	116,000
1947	3,693	2,170	34,600
1948	3,419	1,960	34,100
1949	3,606	3,030	50,500
1950	4,843	2,410	38,800
1951*	2,225	1,050	10,400

n.a. = not available. *First six months, preliminary.

Why Strikes?

Major issues	Percentage of total strikes 1947	1948	1949	1950
Wages and hours	46.3	50.8	46.6	52.8
Union organization, wages and hours	15.1	9.4	6.0	5.6
Union organization	14.7	13.4	15.7	13.4
Recognition	9.9	9.2	10.8	9.9
Strengthening bargaining position	.7	.4	.5	.5
Closed or union shop	2.0	1.8	2.2	1.8
Discrimination	1.2	1.3	1.8	.8
Other	.9	.7	.4	.4
Other working conditions	18.8	21.5	25.0	22.0
Job security	9.5	10.0	12.6	12.2
Shop conditions and policies	7.4	9.7	9.7	7.8
Work load	1.0	1.3	2.1	1.5
Other	.9	.5	.6	.5
Interunion or intraunion matters	4.3	3.8	5.8	5.3
Sympathy	1.1	1.3	1.4	1.0
Union rivalry or factionalism	1.5	1.4	1.5	1.6
Jurisdiction	1.6	1.0	2.6	2.5
Other	.1	.1	.3	.1
Not reported	.8	1.1	.9	.9
All issues	100.0	100.0	100.0	100.0

Termination of Strikes in 1950

Methods of termination	Strikes (per cent of total)	Workers involved (per cent of total)
Agreement of parties reached:		
Directly	55.5	34.7
Assisted by impartial chairman	0.8	0.6
Assisted by government agencies	26.0	54.4
Terminated without formal settlement	15.3	9.7
Employers discontinued business	1.0	0.1
Not reported	1.4	0.5

Sources: U. S. Bureau of Labor Statistics.

Average Earnings and Hours Worked Per Week in Nonmanufacturing Industries

Source: U. S. Department of Labor.

Industry	1941 Earnings	1941 Hours worked	1945 Earnings	1945 Hours worked	1947 Earnings	1947 Hours worked	1949 Earnings	1949 Hours worked	1950 Earnings	1950 Hours worked	1951* Earnings	1951* Hours worked
Anthracite mining	$27.41	28.1	$48.98	39.2	$62.77	37.7	$56.78	30.2	$63.24	32.1	$59.71	28.1
Bituminous coal mining	30.86	31.1	52.25	42.3	66.59	40.7	63.28	32.6	70.35	35.0	75.86	34.8
Metalliferous mining	33.28	41.7	45.86	44.0	54.63	41.8	61.55	40.9	65.58	42.2	73.76	43.6
Quarrying and nonmetallic mining	26.25	41.8	41.26	46.6	50.54	45.0	56.38	43.3	59.88	44.0	63.13	43.4
Telephone	31.95	40.1	.....	.....	44.77	37.4	51.78	38.5	54.38	38.9	56.66	39.9
Telegraph			37.98	45.5	53.56	44.6	62.85	44.7	64.19	44.7	64.61	44.6
Electric light and power	36.54	39.8	50.05	43.5	56.69	41.9	63.99	41.5	66.60	41.6	70.59	41.7
Street railways and busses	35.42	46.5	50.50	51.4	57.14	46.8	64.61	44.9	66.90	45.0	70.50	45.8
Wholesale trade	32.32	41.0	44.07	42.7	51.99	41.0	57.55	40.7	60.36	40.7	63.70	40.7
Retail trade	21.94	42.5	28.31	40.3	40.66	40.3	45.93	40.4	47.63	40.5	49.58	40.1
Hotels (year-round)	16.09	45.6	24.53	44.2	29.36	45.2	32.84	44.2	33.85	43.9	34.91	43.3
Laundries	19.00	43.3	28.61	43.4	32.71	42.6	34.98	41.5	35.47	41.2	36.83	40.9
Dyeing and cleaning	21.70	43.6	32.94	43.3	38.30	41.9	40.71	41.2	41.69	41.2	43.57	41.4
Private building construction	35.00	34.7	53.86	39.1	63.13	37.6	70.35	36.7	73.73	36.3	78.62	37.2

* First 4 months average. NOTE: Data prior to 1947 not strictly comparable with that of later years.

Selected Occupation Groups (1951)
(in thousands)

Source: U. S. Bureau of the Census.

Occupation	Male	Female
Professional & semiprofessional workers	2,987	1,784
Farmers & farm managers	3,944	205
Proprietors, managers, & officials exc. farm	5,202	1,039
Clerical & kindred workers	2,643	4,931
Salesmen & saleswomen	2,354	1,264
Craftsmen, foremen, & kindred workers	8,280	211
Operatives & kindred workers	8,833	3,737
Domestic service workers	49	1,872
Service workers, exc. domestic	2,377	2,143
Farm laborers & foremen	1,731	608
Laborers, exc. farm & mine	3,753	97
Total employed	42,154	17,890

Women Workers (in thousands)

Source: U. S. Bureau of the Census.

Note: Data prior to 1940 refers to gainful workers, not strictly comparable with current figures.

	Female workers	Total workers	Female workers as % of total
1900	5,114	28,283	18.1
1910	7,789	37,271	20.9
1920	8,430	41,236	20.4
1930	10,679	48,595	22.0
1940	14,160	55,640	25.4
1943	18,700	55,540	33.7
1945	19,030	53,860	35.3
1946	16,780	57,520	29.2
1947	16,896	60,168	28.1
1948	17,583	61,442	28.6
1949	17,049	62,105	27.5
1950	18,657	63,099	29.6
1951*	18,737	61,949	30.2

* Average first 5 months.

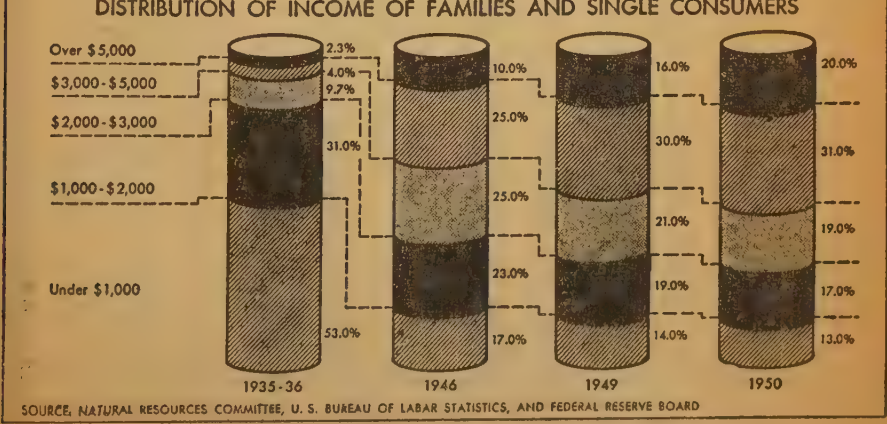
WHAT WE EARN AND SPEND—WHAT LIVING COSTS US

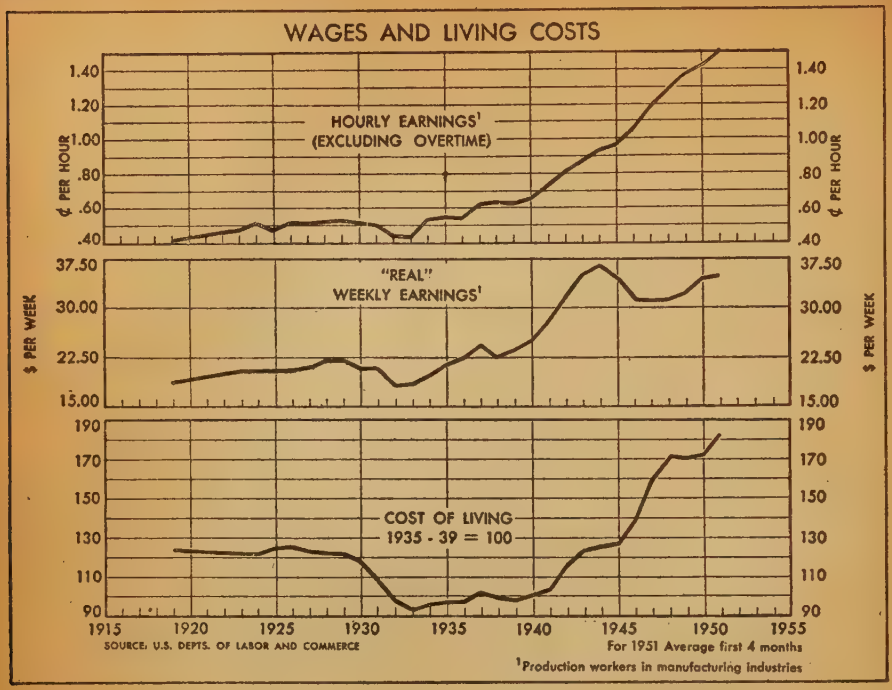
"Who gets the money?" is a favorite topic for political debate and more violent action. This section shows how much different groups in the economy—workers, farmers, professional persons, businessmen—receive of the total national income and how they spend it.

Over the long trend the American economy has been characterized by a steady rise in the real income of all groups. These increases have been particularly pronounced during the war years, as shown by the fact that 51 per cent of all families have incomes of $3,000 or more against 6.3 per cent in 1935–36. Higher production made possible by greater capital investment per wage earner and greater production efficiency has enabled us to achieve this steady improvement. Thanks to steadily rising farm prices, farm income scored the most notable advances during recent years.

The increase in money incomes, however, does not tell the full story. Along with wages and other earnings, prices too have soared, as they always do in periods of war activity. While cost of living had soared more than 86 per cent since 1939, farm prices and raw material costs had more than doubled during the same period. Contrary to the experience in previous postwar periods, hopes that the first weakening of prices in the fall of 1948 would lead to a gradual return to more normal levels were dashed when all indices started a new upward climb by mid-1950.

The crucial thing, however, is how each of us fared on the basis of comparing the increase in our own income with the higher cost of living. In these terms, higher prices have only slowed down, not cancelled out our steady progress to greater economic well being. The greatest relative increase in income went to the farmer, the under-dog of yesterday.





National Income by Distributive Shares (in millions of dollars)

Source: U. S. Department of Commerce.

Type of share	1929	1933	1941	1944	1946	1948	1949	1950	% of total, 1950
National income	87,355	39,584	103,834	183,838	180,286	223,469	216,716	238,963	100.0
Compensation of employees	50,786	29,330	64,280	121,163	117,098	140,166	139,887	153,333	64.2
Wages and salaries	50,165	28,825	61,708	116,924	111,227	134,357	133,432	145,844	61.0
Private	45,206	23,660	51,537	83,449	90,577	115,659	113,047	123,593	51.7
Military	312	270	1,862	20,638	7,962	3,970	4,248	5,101	2.1
Government civilian	4,647	4,895	8,309	12,837	12,688	14,728	16,137	17,150	7.2
Supplements to wages and salaries	621	505	2,572	4,239	5,871	5,809	6,455	7,489	3.2
Employer contributions for social insurance	101	133	1,983	2,937	3,970	3,042	3,503	4,017	1.7
Other labor income	520	372	589	1,302	1,901	2,767	2,952	3,472	1.5
Income of unincorporated enterprises and inventory valuation adjustment	13,927	5,207	16,504	28,997	35,375	39 751	33,903	35,964	15.0
Business and professional	8,262	2,925	9,566	17,156	20,585	22,085	20,903	22,277	9.3
Income of unincorporated enterprises	8,120	3,450	10,210	17,226	22,404	22,480	20,271	23,829	9.9
Inventory valuation adjustment	142	−525	−644	−70	−1,819	−395	632	−1,552	.6
Farm	5,665	2,282	6,938	11,841	14,790	17,666	13,000	13,687	5.7
Rental income of persons	5,811	2,018	4,322	6,495	6,620	7,506	7,545	8,039	3.4
Corporate profits and inventory valuation adjustment	10,290	−1,981	14,615	24,046	18,271	31,711	30,473	36,241	15.2
Corporate profits before tax	9,818	162	17,232	24,333	23,464	33,762	28,336	41,367	17.3
Corporate profits tax liability	1,398	524	7,846	13,525	9,583	13,028	10,989	18,593	7.9
Corporate profits after tax	8,420	−362	9,386	10,808	13,881	20,734	17,347	22,774	9.4
Dividends	5,823	2,066	4,465	4,680	5,808	7,250	7,552	9,169	3.8
Undistributed profits	2,597	−2,428	4,921	6,128	8,073	13,484	9,795	13,605	5.6
Inventory valuation adjustment	472	−2,143	−2,617	−287	−5,193	−2,051	2,137	−5,126	2.1
Net interest	6,541	5,010	4,113	3,137	2,922	4,335	4,908	5,386	2 2

Farm Income—Estimated Receipts from Major Farm Marketings (in millions of dollars)

Source: U. S. Department of Agriculture.

Year	Cotton and cotton-seed	Tobacco	Bread grains	Oil-bearing crops	Feed grains and hay	Vege-tables	Fruits and nuts	Meat animals	Dairy products	Poultry & eggs
1919	2,282	500	1,746	96	1,173	619	642	4,046	1,522	1,111
1929	1,512	279	790	85	706	710	620	3,016	1,838	1,188
1932	461	115	220	31	235	358	327	1,159	986	562
1939	627	271	475	112	477	589	443	2,272	1,346	768
1941	1,045	323	756	232	594	730	613	3,246	1,897	1,107
1944	1,497	689	1,328	588	1,194	1,567	1,504	5,720	2,949	2,306
1945	1,199	898	1,525	610	1,431	1,668	1,479	5,907	3,063	2,784
1947	2,243	1,030	2,789	984	2,286	1,939	1,352	9,319	4,059	2,901
1948	2,567	945	2,704	1,042	2,101	1,989	1,161	9,360	4,441	3,075
1949	2,632	904	2,339	846	2,299	1,641	1,013	8,383	3,778	3,088
1950	2,473	1,064	2,015	923	2,204	1,456	1,342	9,402	3,763	2,842
1951*	383	178	265	171	731	487	325	4,399	1,813	1,307

* First 5 months.

Number and Expenditures of U. S. Residents Traveling in Europe and the Mediterranean Area 1949 and 1950

Source: U. S. Department of Commerce, Office of Business Economics.

Country	Year	Total expenditures (millions of dollars)	Number of travelers (thousands)	Average expenditures (citizens only) (dollars)	Average length of stay (citizens only) (days)	Average per diem expenditures (citizens only) (dollars)
Europe and Mediterranean	1949	185.0	250.3	771	63	12.24
	1950	225.0	302.0	768	64	12.04
Austria	1949	2.5	10.0	250	21	10.43
	1950	3.0	23.1	130	12	10.25
Belgium	1949	5.5	46.8	118	9	12.88
	1950	4.5	47.3	95	9	10.69
Denmark	1949	3.5	19.2	182	22	6.70
	1950	4.0	23.1	173	18	9.28
France	1949	48.0	136.5	352	22	16.48
	1950	56.0	164.6	340	19	17.88
Germany	1949	5.0	27.6	181	23	7.15
	1950	14.5	73.5	197	26	7.87
Greece	1949	1.0	3.8	263	26	9.06
	1950	4.0	10.2	392	61	7.34
Ireland	1949	5.0	17.5	286	28	5.27
	1950	6.0	26.0	231	27	9.06
Italy	1949	32.0	87.7	365	32	11.48
	1950	50.0	136.4	366	35	10.40
Netherlands	1949	6.0	48.2	124	8	14.37
	1950	6.0	56.0	107	10	10.77
Norway	1949	5.0	22.8	219	26	5.66
	1950	4.0	18.4	217	27	6.55
Portugal	1949	2.5	7.1	352	14	14.75
	1950	2.0	12.1	165	8	17.08
Spain	1949	3.0	11.2	268	31	15.40
	1950	2.5	13.9	180	21	8.45
Sweden	1949	6.5	33.0	197	24	8.51
	1950	5.0	24.7	202	29	7.19
Switzerland	1949	18.5	78.9	234	16	15.10
	1950	18.0	94.2	191	10	18.45
United Kingdom	1949	34.0	123.9	274	25	10.79
	1950	37.0	137.2	270	22	12.19

Consumer Income and Spending

Source: U. S. Department of Commerce.

For every $10 change in consumer income, spending for these goods	Changes up or down by:
Durables	
Radios, phonographs, parts & records	$25
Pianos & other musical instruments	23
New cars & net purchases of used cars	20
Luggage	19
Jewelry & watches	18
Tools	17
Furniture	16
Floor coverings	14
Tires & tubes	12
Books & maps	12
Refrigerators, & washing & sewing machines	10
China, glassware, tableware & utensils	7
Nondurables	
Purchased meals & beverages—dining cars & buffet cars	16
Flowers, seeds & potted plants	16
Stationery & writing supplies	14
Clothing & accessories except footwear	11
Purchased meals & beverages—hotels, tips, retail, service & amusement establishments	10
Shoes & other footwear	8
Toilet articles & preparations	8
Drug preparations & sundries	6
Tobacco products & smoking supplies	5
Gasoline & oil	5
Magazines, newspapers & sheet music	5
Selected Services	
Ticket brokers' mark-up on admissions	21
Admissions—legitimate theatres & opera	19
Fur storage & repair	16
Steam railway (except commutation) fares	14
Photo developing & printing	13
Domestic service	13
Taxicab—fares & tips	12
Net payments—mutual accidents & sick benefit associations	12
Dentists—services	9
Telegraph, cable & wireless	9
Beauty parlor services	8
Physicians—services	8
Admissions—motion-picture theatres	7
Intercity bus—fares	7
Interest on personal debt	6
Street & electric railway & local bus—fares	5
Steam railway—commutation fares	5
Telephone	4
Gas	2
Electricity	2

Consumer Spending

Source: U. S. Department of Commerce.

Group	(in millions of dollars) 1929	1932	1939	1941	1945	1947	1948	1949	1950	% of total, 1950
Food and tobacco	21,374	12,719	21,072	26,476	45,924	60,483	63,884	62,870	65,347	33.8
Clothing, accessories, and jewelry	11,018	5,973	8,299	10,483	20,247	23,144	24,213	22,890	22,909	11.8
Personal care	1,116	817	1,004	1,208	2,077	2,261	2,245	2,214	2,291	1.2
Housing	11,421	8,964	8,940	9,863	12,205	14,603	16,466	18,125	19,894	10.3
Household operation	10,509	6,675	9,461	11,724	14,865	22,717	24,450	23,529	26,439	13.7
Medical care and death expenses	3,620	2,575	3,386	3,961	5,902	7,812	8,496	8,927	9,531	4.9
Personal business	5,221	3,111	3,725	4,099	4,787	6,232	7,024	7,530	8,519	4.4
Transportation	7,496	3,924	6,250	8,241	6,694	14,876	16,867	19,327	22,667	11.7
Recreation	4,327	2,439	3,446	4,225	6,314	9,733	10,031	10,269	11,290	5.8
Private education and research	664	571	628	692	871	1,316	1,515	1,657	1,773	.9
Religious and welfare activities	1,196	973	938	1,014	1,572	1,589	1,745	1,762	1,822	.9
Foreign travel and remittances—net	799	457	317	269	1,621	804	954	1,070	1,086	.6
Total consumer outlay	78,761	49,208	67,466	82,225	123,079	165,570	177,890	180,174	193,568	100.0

Income, Expenditures and Savings

(in billions of dollars)

Source: U. S. Department of Commerce.

	1929	1933	1939	1941	1945	1947	1949	1950	1951†
"Real" spendable income*	67.3	48.9	70.6	87.5	117.5	106.2	109.6	118.8	119.5
Spendable income	82.5	45.2	70.2	92.0	151.1	169.5	186.5	204.3	220.1
Consumer expenditures	78.8	46.3	67.5	82.3	123.1	165.6	180.2	193.6	204.9
Consumer savings	3.7	−1.2	2.7	9.8	28.0	3.9	6.3	10.7	15.2

* Spendable income adjusted for changes in U. S. Bureau of Labor Statistics Consumer Price Index. † First half, at annual rate, preliminary.

Farm Income (in millions of dollars)

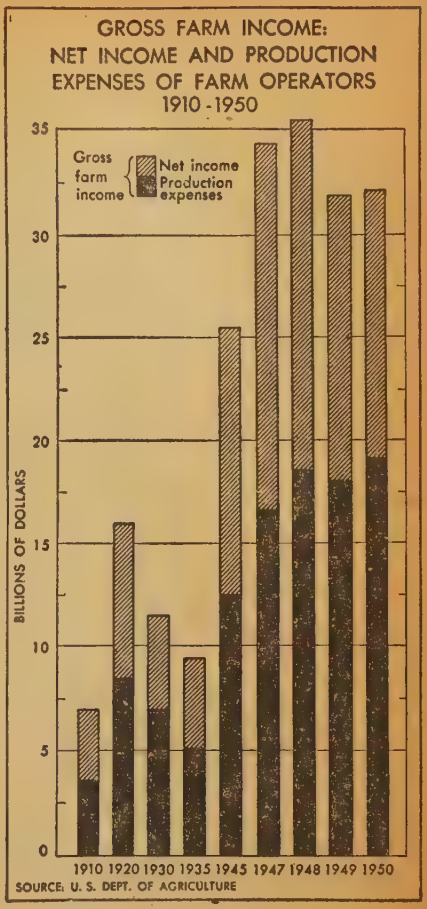
Year	Est. cash income: Crops	Est. cash income: Livestock and livestock products	Government payments	Total cash income
1919....	7,674	6,928	...	14,602
1929....	5,125	6,171	...	11,296
1931....	2,536	3,835	...	6,371
1932....	1,997	2,746	...	4,743
1933....	2,473	2,841	131	5,445
1935....	2,978	4,108	573	7,659
1937....	3,948	4,902	367	9,217
1939....	3,366	4,511	807	8,684
1940....	3,471	4,895	766	9,132
1941....	4,716	6,474	586	11,776
1942....	6,331	9,058	697	16,086
1943....	7,980	11,479	672	20,131
1944....	9,038	11,333	804	21,175
1945....	9,538	11,979	769	22,286
1946....	10,851	13,668	800	25,319
1947....	13,504	16,509	314	30,327
1948....	13,485	17,061	257	30,803
1949....	12,566	14,952	186	27,704
1950....	12,322	15,647	277	28,246
1951*...	2,946	7,664	189	10,799

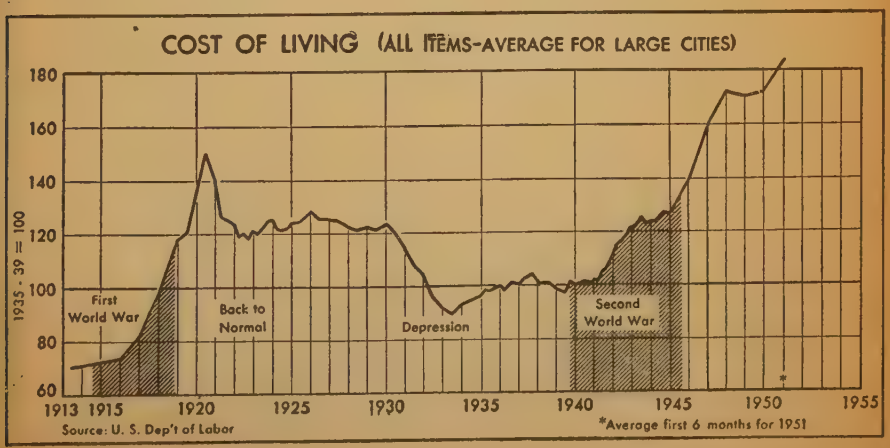
* Total for first 5 months, not adjusted for seasonal variation.

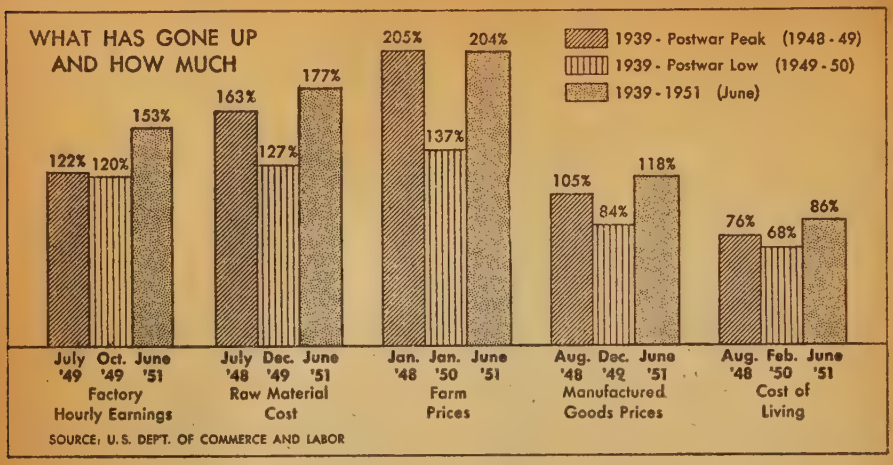
Monthly Farm Wage Rates

Year	Farm wage rates (average) With board	Without board	Year	Farm wage rates (average) With board	Without board
1910.....	$21.22	$28.08	1941.....	$34.85	$43.64
1920.....	51.73	65.40	1943.....	61.91	72.51
1922.....	32.75	43.33	1945.....	82.30	95.40
1929.....	40.61	51.22	1947.....	96.00	111.00
1933.....	18.07	25.67	1949.....	100.00	†
1937.....	28.00	36.32	1950.....	97.00	†
1939.....	27.39	35.82	1951*....	109.00	†

* Average of the first of Jan., April and July. † Breakdown discontinued.



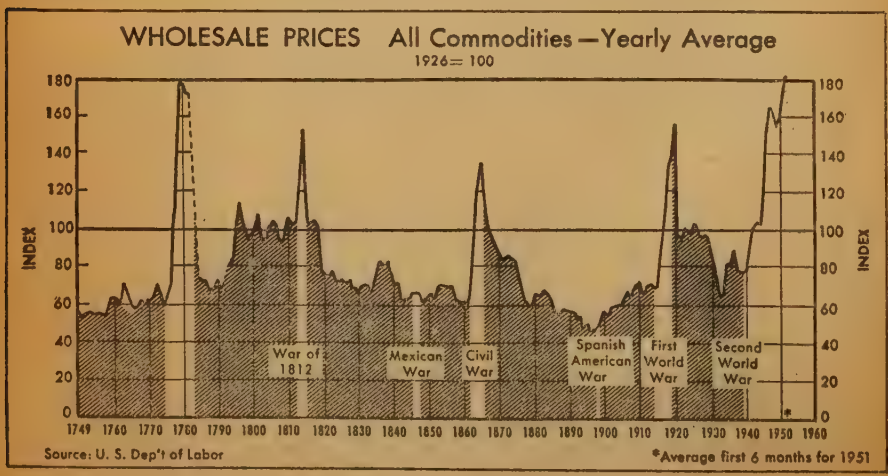




Consumer Price Index (1935–1939 = 100)

Year	All items	Food	Clothing	Rent	Fuel, electricity, and ice	House furnishings	Miscellaneous*
1929	122.5	132.5	115.3	141.4	112.5	111.7	104.6
1932	97.6	86.5	90.8	116.9	103.4	85.4	101.7
1937	102.7	105.3	102.8	100.9	100.2	104.3	101.0
1939	99.4	95.2	100.5	104.3	99.0	101.3	100.7
1941	105.2	105.5	106.3	106.4	102.2	107.3	104.0
1943	123.7	138.0	129.7	108.7	107.7	125.6	115.8
1944	125.7	136.1	138.8	109.1	109.8	136.4	121.3
1945	128.6	139.1	145.9	109.5	110.3	145.8	124.1
1946	139.5	159.6	160.2	110.1	112.4	159.2	128.8
1947	159.6	193.8	185.8	113.6	121.1	184.4	139.9
1948	171.9	210.2	198.0	121.2	133.9	195.8	149.9
1949	170.2	201.9	190.1	126.4	137.5	189.0	154.6
1950	171.9	204.5	187.7	131.0	140.6	190.2	156.5
1951†	184.2	225.7	202.5	134.7	143.8	210.8	164.0

* Includes transportation, medical care, household operation, recreation, personal care.
† Average for first 6 months.



Average Retail Prices of Principal Food Items

Source: U. S. Department of Labor.

Prices in cents per pound except for milk (cents per quart), eggs and oranges (cents per dozen), and tomatoes (cents per No. 2 can).

Item	1913	1920	1922	1929	1932	1941	1943	1946	1947	1948	1949	1950†	1951†
Wheat flour	3.3	8.1	5.1	5.1	3.2	4.5	6.1	7.1	9.6	9.8	9.6	9.8	10.1
Corn meal	3.0	6.5	3.9	5.3	3.6	4.3	5.6	7.5	9.8	10.9	9.1	9.0	9.6
Bread, white	5.6	11.5	8.7	8.8	7.0	8.1	8.9	10.4	12.5	13.9	14.0	14.3	15.6
Round steak	22.3	39.5	32.3	46.0	29.7	39.1	43.9	50.1*	75.6	90.5	85.3	93.6	107.4
Chuck roast	16.0	26.2	19.2	31.4	18.5	25.5	30.2	35.3*	51.5	64.4	55.5	61.6	73.0
Pork chops	21.0	42.3	33.0	37.5	21.5	34.3	40.3	46.0*	72.2	77.2	74.3	75.4	77.1
Bacon, sliced	27.0	52.3	39.8	43.9	24.2	34.3	56.2	51.3*	77.7	76.9	66.5	63.7	67.7
Ham, whole	...	...	...	...	...	30.4	37.7	45.6*	67.5	68.0	63.4	62.0	66.9
Lamb, leg	18.9	39.3	36.6	40.2	23.8	29.7	40.3	47.2*	64.2	71.2	72.5	74.3	80.9
Butter	38.3	70.1	47.9	55.5	27.8	41.1	52.7	71.0	80.5	86.7	72.5	72.9	81.7
Cheese	22.1	41.6	32.9	39.5	24.4	30.0	37.4	50.1	59.1	65.6	56.2	51.8	59.3
Milk, fresh (delivered)	8.9	16.7	13.1	14.4	10.7	13.6	15.5	17.6	19.6	21.8	21.1	20.5	22.7
Eggs	34.5	68.1	44.4	52.7	30.2	39.7	57.2	58.6	69.5	72.3	69.6	60.4	66.7
Bananas	...	12.6	10.3	9.7	6.5	7.2	11.7	11.6	15.1	16.0	16.6	16.3	16.4
Oranges	...	63.2	57.4	44.7	30.2	31.0	44.3	50.0	43.4	44.7	51.8	46.8	46.4
Cabbage	...	6.4	4.6	5.3	4.1	4.2	7.1	5.9	7.3	6.6	6.7	5.9	10.9
Onions	...	7.1	7.9	6.7	5.0	5.0	7.5	6.9	7.3	10.6	7.4	6.8	7.6
Potatoes	1.7	6.3	2.8	3.2	1.7	2.4	4.6	4.7	5.0	5.6	5.5	4.7	4.5
Tomatoes	...	14.8	13.4	12.8	9.3	9.1	15.0	15.0	19.3	16.5	15.2	14.7	32.9
Prunes, dried	...	28.1	20.1	15.3	9.2	9.8	16.6	19.1	24.7	21.4	23.1	24.6	27.5
Coffee	29.8	47.0	36.1	47.9	29.4	23.6	30.0	34.4	46.9	51.4	55.4	79.4	86.4
Lard	15.8	29.5	17.0	18.1	8.7	12.7	19.0	26.3	31.5	29.6	19.2	19.1	25.4
Sugar	5.5	19.4	7.3	6.4	5.0	5.7	6.8	7.7	9.7	9.4	9.5	9.7	10.1

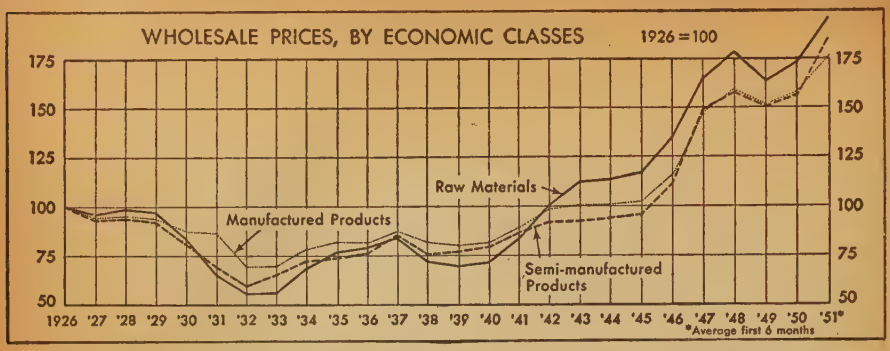
* Average of 10 months only; prices not computed for Sept. and Oct. † Average of first five months.

Wholesale Price Indexes by Major Commodity Groups (1926 = 100)

Source: U. S. Bureau of Labor Statistics.

Year	All commodities	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House furnishing goods	Miscellaneous*
1890	56.2	50.4	55.5	47.5	57.8	38.1	105.3	46.5	73.2	49.9	97.9
1900	56.1	50.5	50.8	49.4	53.3	46.3	98.0	46.2	82.1	48.9	102.0
1910	70.4	74.3	64.9	60.2	58.4	47.6	85.2	55.3	82.0	54.0	152.7
1915	69.5	71.5	65.4	75.5	54.1	51.8	86.3	53.5	112.0	56.0	86.9
1917	117.5	129.0	104.5	123.8	98.7	105.4	150.6	88.2	165.0	74.2	122.1
1919	138.6	157.6	129.5	174.1	135.3	104.3	130.9	115.6	157.0	105.9	139.1
1920	154.4	150.7	137.4	171.3	164.8	163.7	149.4	150.1	164.7	141.8	167.5
1921	97.6	88.4	90.6	109.2	94.5	96.8	117.5	97.4	115.0	113.0	109.2
1922	96.7	93.8	87.6	104.6	100.2	107.3	102.9	97.3	100.3	103.5	92.8
1929	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6
1932	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4
1937	86.3	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8
1939	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8
1940	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3
1941	87.3	82.4	82.7	108.3	84.6	76.2	99.4	103.2	84.4	94.3	82.0
1942	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7
1943	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2
1944	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6
1945	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7
1946	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3
1947	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5
1948	165.1	188.3	179.1	188.8	149.8	134.2	163.6	199.1	135.7	144.5	120.5
1949	155.0	165.5	161.4	180.4	140.4	131.7	170.2	193.4	118.6	145.3	112.3
1950	161.5	170.4	166.1	191.9	148.0	133.3	173.6	206.0	122.7	153.2	120.9
1951†	182.7	200.2	186.0	234.3	180.8	137.8	188.4	227.4	145.9	178.1	142.3

* Includes automobile tires and tubes, paper and pulp, crude rubber and others.
† Average for first 6 months, preliminary.



Farm Prices and Parity Prices

Source: U. S. Bureau of Agricultural Economics.

Product	June 15, 1951 Price received	Parity price*	Actual price as % of parity price
Wheat (bushel)	$ 2.08	$ 2.42	85.9%
Rye (bushel)	1.60	1.77	90.4
Rice (bushel)	5.51	5.58	98.7
Corn (bushel)	1.62	1.76	92.0
Oats (bushel)	.83	.98	84.7
Barley (bushel)	1.22	1.53	79.7
Sorghum grain (100 pounds)	2.16	2.99	72.2
Hay (ton)	21.60	24.30	88.9
Cotton (pound)	.42	.34	123.5
Cottonseed (ton)	95.60	73.90	129.4
Soybeans (bushel)	2.98	2.83	105.3
Peanuts (pound)	.11	.13	84.6
Flaxseed (bushel)	3.40	4.73	71.9
Potatoes (bushel)	1.08	1.82	59.3
Sweet potatoes (bushel)	2.10	2.57	81.7
Apples (bushel)	1.89	2.89	65.4
Oranges on tree (box)	1.53	3.71	41.2
Hogs (hundredweight)	21.10	21.40	98.6
Beef cattle (hundredweight)	29.50	19.90	148.2
Veal calves (hundredweight)	33.40	22.20	150.5
Lambs (hundredweight)	31.70	21.80	145.4
Butterfat (pound)	.70	.77	90.9
Milk, wholesale (100 pounds)	4.21	4.81	87.5
Chickens (pound)	.27	.31	87.1
Eggs (dozen)	.45	.53	84.9
Wool (pound)	1.01	.57	177.2

* Parity price is the August 1909–July 1914 average price increased by the rise in index of prices paid by farmers, including interest and taxes.

Farm to Retail Price Spreads for Farm Food Products*

Source: U. S. Department of Agriculture.

Year	Retail cost (dollars)	Net farm value (dollars)	Farmer's share of consumer's dollars (%)
Average:			
1913–19	361	170	47
1920–24	444	181	41
1925–29	439	183	42
1930	422	163	39
1932	285	90	32
1933	277	90	32
1935	347	134	39
1937	363	151	42
1938	329	127	39
1939	318	122	38
1940	319	127	40
1941	349	154	44
1942	409	195	48
1943	459	236	51
1944	451	233	52
1945	459	246	54
1946	528	279	53
1947	644	335	52
1948	690	350	51
1949	646	308	48
1950	645	308	48
1951†	720	363	50

* Retail cost of 1935–39 average annual purchases of farm food products by a family of three average consumers; farm value of equivalent quantities sold by producers adjusted for value of by-products. † Average first 5 months.

WHAT WE OWN

What and how consumers, businessmen and government units save and invest jointly determines the enduring wealth of the country. Money, stocks, bonds, property of all kinds—these make up the stock of American wealth. The facts about them are statistically summarized and analyzed in the present section.

The following figures on the expanding ownership of modern conveniences point up the rise in American living standards.

Automobiles: 8,000 in 1900; 17,500,000 in 1925; 39,710,000 today.

Telephones: 1,355,900 in 1900; 16,935,900 in 1925; 43,003,800 today.

Homes with radios: 3,500,000 in 1925; 40,700,000 today plus 10,305,000 homes with television today.

Homes with electric washers: 3,500,000 in 1926; 28,092,000 today.

Homes with electric ranges: 370,000 in 1926; 8,195,000 today.

Homes with vacuum cleaners: 5,200,000 in 1926; 22,048,000 today.

Homes with electric refrigerators: 142,000 in 1926; 33,750,000 today.

Selected Types of Individual Savings
(in millions of dollars)

Source: Federal Reserve Board, Treasury Department, Securities and Exchange Commission; "The Insurance Year Book," Federal Home Loan Bank, Department of Commerce.

Type	1939	1941	1943	1945	1947	1948	1949	1950
Life insurance	23,024	26,592	31,365	37,509	43,820	47,139	50,231	54,000*
Time deposits:								
Mutual savings banks	10,523	10,532	11,738	15,385	17,746	18,387	19,273	20,010
Commercial banks	15,258	15,884	19,224	30,135	35,249	35,804	36,146	36,314
Postal savings system	1,278	1,313	1,786	2,932	3,416	3,329	3,197	2,923
Savings and loans association assets	4,060	4,652	5,494	7,365	9,753	10,964	12,471	14,038*
Government pension and trust funds	7,369	10,369	16,569	26,369	33,269	36,669	38,869	40,069
U. S. savings bonds	2,229	6,212	27,363	48,183	52,053	55,051	56,707	58,019
Demand deposits	8,300	11,400	18,200	26,500	32,300	30,800	29,800	.....
Currency	4,200	6,800	14,400	20,800	20,600	19,900	19,300	.....
Total	76,241	93,754	146,139	215,178	248,206	258,043	265,994	.....

* Estimated.

Money in Circulation
(in millions of dollars)

Source: U. S. Treasury Department.

June 30	Total*	Gold certificates	Silver dollars	Silver certificates	Subsidiary silver	Minor coin	United States notes	Federal reserve notes	Federal reserve bank notes	National bank notes
1929	4,746	935	44	387	284	115	262	1,693	4	653
1932	5,695	716	30	353	256	114	289	2,780	3	701
1935	5,567	117	32	702	296	125	285	3 223	82	704
1937	6,447	88	38	1,078	341	144	282	4,169	38	269
1939	7,047	72	42	1,454	361	155	266	4,484	26	187
1940	7,848	67	46	1,582	384	169	248	5,163	22	165
1941	9,612	63	53	1,714	434	194	300	6,684	20	151
1942	12 383	59	66	1,754	504	213	317	9,310	19	139
1943	17,421	57	84	1,649	610	236	322	13,747	584	132
1944	22,504	54	103	1,588	700	263	322	18,750	597	126
1945	26,746	52	125	1,651	788	292	323	22,868	527	120
1946	28,245	50	140	2,025	843	317	317	23,973	464	114
1947	28,297	48	148	2,061	876	331	320	23,999	406	106
1948	27,903	45	156	2,062	919	346	321	23,600	353	99
1949	27,493	43	164	2,061	940	355	319	23,209	309	93
1950	27,154	41	170	2,177	965	361	321	22,759	274	86
1951	27,805	39	180	2,092	1,019	378	318	23,453	243	81

* Includes Treasury notes of 1890 and for 1929 and 1932 gold coin.

Sales and Redemptions of United States Savings Bonds
(in millions of dollars)

Source: U. S. Treasury Department.

	All Series			Series E		
Year	Sales*	Redemptions	Amount outstanding†	Sales*	Redemptions	Amount outstanding†
1941	3,036	168	6,140	1,145	11	1,134
1943	13,729	1,585	27,363	10,344	1,380	15,957
1945	12,937	5,558	48,183	9,822	4,963	30,727
1947	6,694	5,126	52,053	4,085	3,930	30,997
1948	7,295	5,144	55,051	4,224	3,728	32,188
1949	5,833	5,101	56,707	4,208	3,448	33,766
1950	6,074	5,840	58,019	3,668	3,912	34,493
1951‡	2,116	3,167	57,572	1,640	2,157	34,506

* Issue price. † End of year. ‡ Jan. to June, inclusive.

Distribution of Consumer Liquid Assets

Source: Federal Reserve Board.

Spending units ranked by incomes	Percentage of liquid assets held:				
	1951	1950	1949	1948	1947
Highest tenth	36	35	44	43	39
Second tenth	15	13	11	14	15
Third tenth	10	10	9	8	9
Fourth tenth	6	8	8	7	7
Fifth tenth	7	8	6	5	7
Sixth tenth	6	6	6	6	7
Seventh tenth	6	7	6	4	5
Eighth tenth	5	5	3	4	4
Ninth tenth	4	4	4	4	4
Lowest tenth	5	4	3	5	3
All units	100	100	100	100	100

WHAT WE OWE

Much modern wealth is also debt; one man's asset is frequently another man's liability. For example, while Americans consider their close to $60 billion in war and savings bonds as assets they own, the bonds are also liabilities which, as part of our common public debt, must be financed or retired.

Our steadily growing national debt was multiplied by the war. Worried by the size of this debt and the burden it enforced on the economy in the form of interest charges, many people felt strongly that a determined effort ought to be made to retire part of this debt—until the financial burden imposed by our new mobilization brought us face to face with the need to engage once more in deficit financing.

The debt we incur as individuals took a nose dive early in the war, partly because of government restrictions and partly because many of the goods we normally buy on credit just weren't available. With the end of the war, however, consumer credit began to rise sharply. To help stem new inflationary pressures, controls were once more slapped on in 1950 and by 1951 were actually curbing some of the major purchases of consumer durables.

Net Debt in the United States*

(in billions of dollars)

Source: U. S. Department of Commerce.

Class	1916	1920	1925	1930	1935	1940	1945	1947	1949	1950
Net Public Debt:										
Federal	1.2	23.7	20.3	16.5	34.4	44.8	252.7	223.3	218.6	218.7
State and local	4.4	5.9	10.0	14.1	16.0	16.5	13.7	14.4	18.1	20.4
Total public debt	5.6	29.6	30.3	30.6	50.5	61.3	266.5	237.7	236.7	239.1
Net Private Debt:										
Corporate	40.2	57.7	72.7	89.3	74.8	75.6	85.3	108.9	114.7	135.0
Long-term	29.1	32.6	39.7	51.1	43.6	43.7	38.3	46.1	55.4	58.2
Short-term	11.1	25.1	33.0	38.2	31.2	31.9	47.0	62.8	59.3	76.8
Individual & noncorporate	36.3	48.1	59.7	71.6	50.6	54.0	55.5	72.9	94.2	109.9
Mortgage: Farm	5.8	10.2	9.7	9.4	7.4	6.5	4.7	4.9	5.4	5.8
Nonfarm	8.5	11.9	21.6	32.7	26.1	27.2	27.9	40.1	51.9	61.1
Nonmortgage: Farm	2.0	3.9	2.8	2.4	1.5	2.6	2.5	3.5	6.4	6.1
Nonfarm	20.0	22.1	25.6	27.1	15.6	17.7	20.5	24.4	30.5	36.9
Total private debt	76 5	105.8	132.2	160.8	125.4	129.6	140.8	181.8	208.9	244.9
Total public and private debt	82.1	135.4	162.7	191.4	175.9	190.9	407.3	419.5	445.6	484.0

* End of year.

Public Debt of the United States

Source: U. S. Treasury Department.

June 30—	Gross debt Amount (in millions of dollars)	Per capita (dollars)
1800*	$ 83	$ 15.87
1860	65	2.06
1865	2,678	75.01
1900	1,263	16.60
1915	1,191	11.85
1920	24,299	228.23
1929	16,931	139.04
1930	16,185	131.51
1932	19,487	156.10
1935	28,701	225.55
1937	36,425	282.75
1939	40,440	308.98
1942	72,422	537.80
1943	136,696	1,001.46
1944	201,003	1,455.67
1945	258,682	1,853.21
1946	269,422	1,907.62
1947	258,286	1,793.23
1948	252,292	1,721.30
1949	252,770	1,694.00
1950	257,357	1,696.97
1951	255,251	1,693.80

* Figures for 1800 are as of Jan. 1.

Consumer Credit

(in millions of dollars)

Source: Federal Reserve Board.

End of year	Total*	Installment sale debt	Charge account sale debt	Cash loan debt†
1929	6,252	2,515	1,749	1,392
1932	3,493	999	1,114	889
1935	4,773	1,122	1,081	1,204
1937	6,513	1,805	1,292	1,745
1938	6,128	2,752	1,459	1,805
1939	7,031	2,313	1,487	2,162
1940	8,163	2,792	1,544	2,503
1941	8,826	3,450	1,650	2,708
1942	5,692	3,744	1,764	1,914
1943	4,600	1,617	1,513	1,533
1944	4,976	882	1,498	1,598
1945	5,627	891	1,758	1,932
1946	8,677	942	1,981	3,101
1947	11,862	1,648	3,054	4,244
1948	14,366	3,086	3,612	5,021
1949	16,809	4,528	3,854	5,668
1950	20,097	7,904	4,239	6,887
1951‡	19,133	7,166	3,743	7,130

* Includes service credit.
† Installment and single-payment loans.
‡ End of July, preliminary.

UNITED STATES AND THE WORLD ECONOMY

U. S. Foreign Trade

The year 1950 was one of crisis—of changes in the whole pattern of American political and economic life. The eruption of the cold war into open aggression in Korea was the key development. It brought with it big alterations in all economic relations of the U. S. with the rest of the world.

Changes took place in the volume and direction of U. S. foreign trade. Increased restrictions were imposed on trading with the Soviet Union and its satellites. The emphasis in the ECA and Point Four programs were shifted in the direction of building the defensive strength of the free world against threat of Soviet imperialism.

Exports, which had reached a postwar low in the first six months of 1950, after an uninterrupted decline since 1947, increased during the last half of the year. This increase was continued during the first six months of 1951.

For the entire year 1950, however, exports totaled $10,275 million—off 15 per cent from the $12,000 million value of 1949. For the first half of 1951, exports were at an annual rate of almost $15,000 million.

Three factors account for this increase in exports. First, the defense buildup of the free nations has caused increased U. S. exports of raw materials, military equipment, and heavy industrial machinery. Much of this material and equipment is being supplied under the ECA and Mutual Defense Aid Programs. Second, many nations, whose balance of payments and monetary reserves positions had been improved through increased dollar earnings, were able to relax restrictions against imports from the U. S. Third, some nations, fearing that shortages might result from the uncertain international situation, eased import curbs to permit the building up of reserve supplies.

TABLE I

United States Exports, Imports and Merchandise Trade

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Yearly average and year	Merchandise			
	Total exports[1]	General imports	Imports as per cent of exports	Excess of exports
1936–38	2,967	2,489	83.9	478
1939–41	4,115	2,763	67.1	1,352
1942–44	11,819[2]	3,356	28.4	8,463
1945	10,527[2]	4,159	39.5	6,368
1946	10,185[2]	4,942	48.4	5,243
1947	15,340	5,756	37.5	9,584
1948	12,653	7,124	56.3	5,529
1949	12,051	6,622	54.9	5,429
1950	10,275[3]	8,842	86.1	1,433

[1] Exports, including re-exports. Data cover all merchandise shipped from the United States customs area with the exception of supplies destined to United States armed forces abroad for their own use. In addition to commercial trade, the data include aid and relief shipments largely made under the following programs: Lend-Lease in the war years; UNRRA in immediate postwar years, and civilian supplies sent to occupied areas through United States armed forces beginning 1944; ECA program beginning April 1948, and Mutual Defense Assistance Program beginning July 1950. [2] Includes an estimate of civilian supply shipments beginning 1944. [3] Includes Mutual Defense Assistance Program shipments valued at $282,000,000 of which $247,000,000 went to ERP countries.

TABLE II

Indexes of U. S. Exports and Imports

Source: U. S. Department of Commerce.

Yearly average, year, and quarter	Quantity	Unit value	Value
Total exports of United States merchandise:[1]			
1936–38	100	100	100
1939–41	135	102	138
1942–44	269	148	399
1945	197	167	328
1946	206	158[1]	325
1947	275	188	518
1948	214	200	428
1949	221	185	408
1950	193	180[2]	347
1950:			
1st quarter	181	176	320
2nd quarter	194	174	339
3rd quarter	184	179	330
4th quarter	209	190	398
Imports for consumption:			
1936–38	100	100	100
1939–41	104	105	109
1942–44	97	140	136
1945	107	156	167
1946	113	173	196
1947	108	213	230
1948	123	235	288
1949	120	224	268
1950	146	242	355
1950:			
1st quarter	137	223	304
2nd quarter	136	229	310
3rd quarter	154	248	381
4th quarter	157	270	424

[1] Apparent price decline is due to the diminishing part in total trade of lend-lease exports, which had shown a greater price rise during the war years than non-lend-lease goods. In 1945, the unit value of non-lend-lease exports was 144 (1936–38 as 100) as compared with 167, the unit value of total exports as shown in this table. [2] Price decline is due in part to sales abroad during the year of considerable amounts of foodstuffs at prices well below market quotations in the United States. Such exports included sales from Government-owned surplus and shipments on which subsidies were paid by the Department of Agriculture

TABLE III

Exports of Goods and Services and Means of Financing

(Billions of dollars)

Source: U. S. Department of Commerce.

Period	Surplus of exports of goods and services[1]	Means of financing			
		U. S. government sources[2] (net)	Liquidation of foreign gold and dollar assets[3] (net)	Outflow of United States private capital[4] (net)	Other means of financing[5] (net)
1936–38 average	0.5	...	0.8	—0.2	—0.1
1946	7.8	5.0	1.9	.4	.5
1947	11.5	5.8	4.5	.8	.4
1948	6.7	5.1	.8	.9	...
1949	6.2	5.9	...	.6	— .3
1950	2.3	4.3	—3.6	1.3	—3.0

[1] Includes income on investments. [2] Includes grants and loans but excludes subscription to the capital of the International Bank for Reconstruction and Development and the International Monetary Fund. [3] Includes net sales of gold to the U. S. and net liquidation of foreign dollar assets, including long-term investments. Excludes liquidation of assets held by the International Bank and the International Monetary Fund. [4] Includes both long-term and short-term capital but excludes purchase of obligations of the International Bank. [5] Includes private gifts, net dollar disbursements by the International Bank and the International Monetary Fund, and allowance for errors and omissions.

Imports, which had already reached high levels before Korea, were at record levels during the last half of the year. As a matter of fact, imports during the months of August and October exceeded the value of exports for the first time since 1937. Stockpiling of defense materials, record levels of industrial activity attending the defense buildup, and the extremely high levels of national income accounted for the rising value of imports. The currency revaluations which had been made in September 1949 also helped to spur imports as foreign goods became more competitive pricewise with U. S. products.

During 1950, imports reached a record $8,842 million—34 per cent above the 1949 total of $6,626 million. This movement has continued into 1951 with imports during this period at an annual rate of $12,000 million.

Table I presents the value of U. S. exports, imports, and the balance of merchandise trade from 1936 to 1951; table II shows the changes in quantity, unit value and total value of United States exports and imports.

It will be noted that, as a result of greatly increased imports and reduced exports, the U. S. trade surplus in 1950 was $1,433 million—only about one-fourth as large as that of 1949 and the smallest since 1940. The terms of trade of foreign nations with the U. S.—that is, the unit value of their exports to the U. S. against the unit value of U. S. exports—showed considerable improvement during the year too. Prices of imported goods rose 8 per cent over the previous year; while prices of U. S. goods exported during the year showed an average decline of 3 per cent. U. S. imports are predominantly foods and industrial materials whose prices rose rapidly after the Communist aggression in Korea.

Altogether, the difference between total U. S. receipts during 1950 on current account ($14.4 billion) and U. S. payments to foreign countries ($12.1 billion) amounted to $2.3 billion. Foreign countries financed this deficit in their dealings with the U. S. by U. S. government grants and loans ($4.3 billion) and by a net increase of U. S. private investment abroad ($1.3 billion). During the year, foreign countries increased their holdings of U. S. gold and dollar reserves. Table III shows how the surplus of American goods and services to other coun-

TABLE IV

Marshall Plan Recovery Indexes

Source: Economic Cooperation Administration.

(1938 = 100)

Country	1948 1st qtr.	1950 1st qtr.	1950 4th qtr.	1951 1st qtr.
Austria	71	128	147	143
Belgium	113	116	134	139
Denmark	133	152	168	165
France	110	121	134	139
Germany (Fed. Rep.)	41	82	111	110
Greece	69	97	131	123
Ireland	123	151	164	154
Italy	92	113	129	133
Netherlands	106	130	152	147
Norway	125	147	149	155
Sweden	148	167	178	176
United Kingdom	128	150	158	156
All countries	97	123	139	139

TABLE V

ECA Allotments to Participating Countries, April, 1948–March, 1951

(Millions of dollars)

Source: Economic Cooperation Administration.

Country or purpose	Direct grants	Loans	Conditional aid	Total[1]
United Kingdom	1,836.9	336.9	532.1	2,705.9
France	2,034.1	182.4	61.3	2,277.8
Italy	1,068.9	73.0	85.8	1,227.7
Germany (Fed. Rep.)	973.2	....	218.6	1,191.8
Netherlands[2]	775.6	150.7	31.6	957.9
Belgium-Luxemburg	17.7	52.6	460.7	531.0
Austria	515.7	....	4.7	520.4
Greece	453.6	....	....	453.6
Denmark	200.2	31.0	9.1	240.3
Norway	173.5	35.0	10.9	219.4
Ireland	18.0	128.2	....	146.2
Turkey	34.8	73.0	17.3	125.1
Sweden	....	20.4	98.1	118.5
Portugal	5.5	34.8	8.2	48.5
Trieste	32.7	....	....	32.7
Iceland	10.7	4.3	3.5	18.5
European Payments Union (capital account)	350.0	....	....	350.0
ECA prepaid freight account	56.0	....	....	56.0
Total	8,557.1	1,122.3	1,541.9	11,221.3

[1] Excludes GARIOA and funds for special programs such as technical assistance, strategic materials and relief shipments. [2] Includes aid to Indonesia prior to July 1, 1950.

TABLE VI

United States Production of Movable Goods, Value of Exports, and the Proportion Exported in Selected Years

(in billions of dollars)

Source: U. S. Department of Commerce.

Year	Production of movable goods	Exports	Exports as percentage of production
1914	20.2	2.1	10
1919	47.5	7.8	16
1921	33.9	4.4	13
1925	47.2	4.8	10
1927	47.5	4.8	10
1929	53.2	5.2	10
1937	44.0	3.3	7.7
1939	41.9	3.1	7.5
1941	64.2	5.0	8
1943	113.1	12.6	11
1944	114.8	14.2	12
1945	102.9	9.6	9
1946	100.4	11.9*	11.9
1947	130.0	15.0	11.7
1948	137.5	12.5	9.1
1949	127.2	11.8	9.3
1950	142.3	10.3	7.0

* Excluding 1.6 billion dollars of surplus property.

tries was financed for 1936–38, 1946–49, and 1950.

April 1951 marked the completion of the third year of the Marshall Plan program. This program was set up to help insure the reconstruction of the European economy. The fear was that, unless the viability of Europe could be restored, living standards would be so low that political instability would result. In the resulting confusion, these countries might fall prey to Communism.

The program has been outstandingly successful. As Table IV indicates, over-all production in the 16 participating countries has increased by 43 per cent during the period April 1948 to the end of March 1951. Recovery in Western Germany has been particularly spectacular, with production increasing by 168 per cent during this period. Communist-party strength in the Western European countries has shown significant decline during this period.

Although the program was originally scheduled to achieve the rehabilitation of the European economy over a four-year period, four countries—by the end of August 1951—have achieved a condition where they no longer required ECA aid. Marshall Plan aid to the United Kingdom, Ireland, Belgium and Sweden has been discontinued by mutual agreement. Table V shows the allotment of ECA funds during the period April 1948 to March 31, 1951.

The direction of the Marshall Plan program was considerably changed as a result of the Communist aggression in Korea. The Western European nations, along with the United States, have embarked on a defense program to counter the threat of Soviet imperialism. ECA aid is now putting greater stress on expansion of Western European defense output.

The U. S., as a result of the resort of the Communists to armed force, has expanded its program of military and economic aid. The objective of this program is to build up the strength of the free nations so as to discourage further military aggression by the Communists. It appears likely that the Congress will appropriate $7.5 billion for this program for the current fiscal year. Part of the funds will be used for the development of underdeveloped countries with the stress on the expansion of strategic materials required by the defense program of the free nations.

During the twenties the ratio of exports to the total production of movable goods averaged about 10 per cent. Table VII showing the ratio between exports and the total production of movable goods indicates that, while this proportion declined during the thirties and stood at 7.7 per cent in 1937, it increased to 12 per cent

TABLE VII: United States Exports of Leading Commodities

(Value in millions of dollars. Commodities in each group are listed in order of value in 1950)

Source: U. S. Department of Commerce.

Commodity	Value		
	1948	1949	1950
Crude materials:			
Cotton, unmanufactured	511	874	1,024
Coal	479	297	269
Tobacco, unmanufactured	215	252	250
Crude petroleum	117	98	103
Foodstuffs:			
Grains and preparations	1,705	1,457	834
Fruits and vegetables	283	189	171
Meats and edible animal fats	128	144	107
Dairy products and eggs	256	200	103
Manufactures, including semimanufactures:			
Machinery*	2,307	2,361	2,021
Industrial machinery	1,277	1,322	1,102
Electrical apparatus	516	482	436
Tractors, including parts and accessories†	268	299	245
Agricultural implements	114	128	109
Chemicals and related products	787	749	711
Automobiles, including parts and accessories‡	898	730	703
Motortrucks and busses, new	348	229	217
Passenger automobiles, new	281	206	179
Textiles and textile manufactures§	844	656	516
Cotton cloth, duck, and tire fabric	314	224	149
Iron- and steel-mill products:			
Total, including scrap	650	732	473
Total, excluding scrap	642	725	467
Petroleum products	540	463	397
Lubricating oils	199	169	174
Motor fuel and gasoline	134	146	90
Advanced manufactures of iron and steel	207	184	150
Merchant vessels	255	173	118

* Includes electrical apparatus, industrial machinery, office appliance, printing machinery, and agricultural machinery and implements. † Includes used tractors. ‡ Excludes service equipment. § Includes finished products and yarns and other semimanufactures.

TABLE VIII: Imports for Consumption

(Value in millions of dollars. Commodities in each group are listed in order of value in 1950)

Source: U. S. Department of Commerce.

Commodity	Value		
	1948	1949	1950
Crude materials:			
Crude rubber	309	240	459
Wool, unmanufactured	308	222	427
Crude petroleum	283	341	367
Nonferrous ores and concentrates*	216	265	243
Hides and skins	108	73	118
Oilseeds	151	95	105
Undressed furs	159	103	101
Vegetable fibers, except cotton	93	88	95
Foodstuffs:			
Coffee	698	795	1,091
Cane sugar	313	372	380
Fruits, edible nuts, and vegetables	222	199	215
Cocoa or cacao beans	194	125	167
Fish, including shellfish	111	112	157
Meat products	91	72	113
Semimanufactures:			
Nonferrous metals, total	562	571	724
Copper†	107	111	130
Tin‡	104	134	155
Sawmill products§	251	112	264
Wood pulp	272	182	240
Gas oil and fuel oil	126	127	204
Steel-mill products	43	66	131
Vegetable oils and fats, expressed	84	61	85
Finished manufactures:			
Paper and manufactures	438	453	473
Newsprint	413	438	453
Machinery	108	114	123
Burlaps	131	103	91
Wool manufactures	55	47	76
Cotton manufactures	45	43	65
Clocks, watches and parts	60	51	57
Flax, hemp and ramie manufactures	30	31	41
Vehicles and parts	46	21	34

* Incl. ores of ferroalloying metals. † Refined in ingots, plates or bars. ‡ Bars, blocks, pigs, scrap and alloy. § Except railroad ties, sugar-box shooks, and packing boxes.

TABLE IX

Merchandise Trade, by Economic Classes

(Value in millions of dollars)

Source: U. S. Department of Commerce.

Yearly average, year, and quarter	Total		Crude materials		Foodstuffs		Semi-manufactures		Finished manufactures	
	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent	Value	Per cent
Exports of United States merchandise:[1]										
1936–38	2,925	100	669	22.9	306	10.5	519	17.7	1,431	48.9
1947	15,162	100	1,601	10.6	3,105	20.5	1,785	11.8	8,670	57.2
1948	12,532	100	1,488	11.9	2,579	20.6	1,370	10.9	7,094	56.6
1949	11,936	100	1,780	14.9	2,228	18.7	1,356	11.4	6,573	55.1
1950	10,142	100	1,885	18.6	1,363	13.4	1,123	11.1	5,772	56.9
1950:										
1st quarter	2,339	100	430	18.4	327	14.0	256	10.9	1,325	56.6
2nd quarter	2,476	100	506	20.4	326	13.2	271	10.9	1,373	55.5
3rd quarter	2,416	100	425	17.6	328	13.6	272	11.2	1,391	57.6
4th quarter	2,912	100	524	18.0	382	13.1	323	11.1	1,633	57.8
Imports for consumption:										
1936–38	2,461	100	760	30.9	720	29.3	503	20.4	478	19.4
1947	5,666	100	1,766	31.2	1,672	29.5	1,245	22.0	983	17.3
1948	7,092	100	2,148	30.3	2,002	28.2	1,632	23.0	1,310	18.5
1949	6,592	100	1,854	28.1	2,073	31.5	1,418	21.5	1,246	18.9
1950	8,735	100	2,463	28.2	2,645	30.3	2,123	24.3	1,504	17.2
1950:										
1st quarter	1,873	100	536	28.6	608	32.5	417	22.2	312	16.7
2nd quarter	1,907	100	515	27.0	560	29.4	480	25.2	352	18.5
3rd quarter	2,344	100	632	26.9	791	33.7	543	23.1	378	16.1
4th quarter	2,611	100	780	29.9	687	26.3	682	26.1	462	17.7

[1] Beginning 1947 data include civilian supplies sent to occupied areas through the United States armed forces.

during 1944. The percentage of movable goods exported during 1949 was 7.0 per cent. Table VI shows commodity exports as a percentage of the production of movable goods in the U. S. from 1914–49.

On the other hand, the ratio of U. S. imports of goods to the gross national product ranged, during the prewar period, from a high of 5.9 per cent in 1920 to a low of 2.5 per cent in 1932. During the 10-year period 1920–29, the average ratio was 4.4 per cent; during the thirties it declined to 2.9 per cent. In 1950, the ratio reached a postwar high of 3.3 per cent.

Because the percentage of movable goods exported and the ratio of commodity imports to national income are small, there is a widespread belief that foreign trade is not important to the American economy. This view overlooks the importance of export markets to particular industries and the strategic character of many imports. Exports account for major percentages of the total United States production of cotton, leaf tobacco, dried fruit, lard, aircraft and parts, sewing machines, office appliances, mining machinery, tractors, petroleum products, sulfur, carbon black and naval stores. Volume exports mean the difference between profit and loss in many American industries.

Similarly, the United States is dependent upon imports to supply many goods essential to American security, living standards and the continued efficient operation of its industry. Coffee, bananas, cocoa, chicle, shellac, tin, antimony, cadmium, manganese, chrome, nickel, asbestos, mica, quartz crystals, natural rubber, silk, diamonds, burlaps, and cordage fibres are almost entirely imported from abroad. In addition large imports of sugar, hides, furs, wool, wood pulp, newsprint, lead, zinc, copper, bauxite, waxes, tanning extracts, vegetable oils and crude petroleum are needed to augment short domestic production.

Tables VII and VIII list the principal United States commodity exports and imports from 1936 to 1949.

United States exports reflect the industrial character of the country, 57 per cent of total exports in 1950 consisting of finished manufactured goods. Semimanufactured goods accounted for 11.1 per cent, foodstuffs 13.4 per cent and crude materials 18.6 per cent. Food exports during 1950 constituted a higher percentage of total exports than prewar, reflecting the continued world shortage of foodstuffs. United States exports of foodstuffs averaged only 10.5 per cent of total exports prewar.

TABLE X Total Exports, General Imports of Merchandise, by Countries

(Value in millions of dollars) *Source:* U. S. Department of Commerce.

Continent, area, and country	Exports, including re-exports			General imports		
	1947	1949	1950	1947	1949	1950
North America: Northern	2,114.5	1,959.2	2,016.1	1,128.1	1,552.1	1,958.3
Southern	1,715.0	1,339.5	1,432.9	1,015.7	941.3	1,139.1
South America	2,353.6	1,561.8	1,376.8	1,254.2	1,501.3	1,959.5
Europe[2]	5,686.1	4,118.2	2,945.7	820.0	925.1	1,387.5
Asia[2]	2,329.3	2,255.8	1,554.7	1,054.6	1,239.6	1,697.8
Oceania	320.3	194.9	142.1	155.8	125.4	208.0
Africa	821.5	621.8	361.6	327.3	337.5	491.8
Total	15,340.3	12,051.1	10,274.8[1]	5,755.7	6,622.3	8,841.9
NORTH AND SOUTH AMERICA						
Canada[3]	2,073.7	1,940.4	2,015.9	1,095.1	1,512.1	1,957.2
20 American Republics	3,857.8	2,721.0	2,668.0	2,167.6	2,301.0	2,907.2
Mexico	629.9	468.2	515.7	246.7	243.5	317.7
Central America	324.3	262.7	257.8	119.5	139.0	178.3
Cuba	491.8	380.3	460.4	509.6	387.5	405.6
Colombia	218.9	175.9	233.3	205.6	241.5	313.1
Venezuela	426.8	518.4	398.4	173.5	278.1	322.0
Peru	91.6	86.1	72.8	41.7	40.2	48.5
Bolivia	28.3	36.2	20.5	39.5	48.5	34.4
Chile	125.3	142.6	71.7	122.3	152.5	159.6
Brazil	643.2	382.9	353.6	445.7	551.8	714.5
Uruguay	75.5	34.7	40.2	37.8	54.0	106.1
Argentina	679.9	130.8	144.6	154.6	97.5	205.1
Netherlands Antilles	66.9	75.9	69.6	73.0	111.4	157.0
EUROPE						
16 ERP countries[4]	5,295.9	4,075.7	2,878.2	695.3	842.4	1,259.5
Belgium	534.6	307.7	270.3	58.6	94.2	139.6
France	817.2	497.1	349.7	47.0	61.5	131.3
Germany	585.3	822.1	439.8	6.3	45.5	103.7
Italy	499.9	458.0	345.1	43.8	70.9	109.3
Netherlands	383.7	283.4	228.0	26.5	59.3	84.0
Sweden	397.6	87.4	99.4	92.6	54.4	71.3
Switzerland	194.4	142.6	129.4	83.4	93.1	110.0
United Kingdom	1,103.2	700.2	520.2	204.9	227.6	334.9
Turkey	82.2	120.6	70.4	57.2	55.7	61.2
10 Eastern European countries[5]	339.9	61.9	26.7	108.2	67.4	80.5
U.S.S.R.	149.1	6.6	.8	77.1	39.2	38.2
Other Europe	132.5	101.2	111.2	73.7	71.0	58.7
OTHER CONTINENTS						
Western Asia, excluding Turkey	221.6	384.3	225.7	50.1	114.6	151.8
Kuwait	11.8	22.6	3.2	.3	38.9	41.8
Iran	34.0	113.5	35.2	23.4	16.4	23.6
Israel and Palestine[6]	31.7	79.2	94.2	5.1	6.0	8.0
Saudi Arabia	67.5	84.8	33.2	2.5	19.9	24.2
Far East	2,345 8	1,945.7	1,400.7	1,103.0	1,194.7	1,692.8
British Malaya	65.8	37.6	20.6	284.1	195.5	308.7
China	353.5	82.7	38.3	116.7	106.4	145.8
Hong Kong	89.5	121.2	107.3	2.4	4.3	5.4
Japan	414.5	467.5	418.2	35.4	82.0	182.0
India	401.1[7]	255.2	215.6	253.8[7]	238.8	259.4
Pakistan	(7)	45.8	33.5	(7)	27.7	31.4
Indonesia	103.6	124.5	80.6	36.6	120.4	157.3
Philippines, Republic of	439.5	439.2	240.3	161.7	204.7	234.8
Australia	235.6	142.7	107.9	125.3	97.6	141.1
New Zealand	76.8	42.6	27.8	27.6	24.4	64.4
Africa: Algeria	47.7	26.4	15.5	1.8	4.1	5.1
Belgian Congo	50.0	48.4	40.5	32.5	36.3	46.0
British West Africa	35.8	14.9	12.3	84.7	82.4	93.5
Egypt	60.1	52.8	32.8	28.1	9.4	54.6
Union of South Africa	413.9	266.0	124.8	111.1	116.4	140.4
Sterling area countries[8]	2,833.3	1,886.7	1,306.5	1,203.6	1,194.5	1,601.4

[1] This total includes $445,000,000 not distributed by area and country. "Special category" exports are excluded from area and country data beginning July 1, 1950. [2] Turkey is excluded from Europe and included with Asia. [3] Includes Newfoundland beginning 1950. [4] Includes Iceland, Norway, Denmark, Ireland, Austria, Portugal, Free Territory of Trieste, Greece, in addition to countries shown. [5] Czechoslovakia, Hungary, Estonia, Latvia, Lithuania, Poland and Danzig, Albania, Rumania and Bulgaria, and U.S.S.R. [6] Includes Trans-Jordan in 1947. [7] Pakistan included with India in 1947. [8] Data cover trade with countries in sterling area as of December 31, 1950.

Foodstuffs represented the most important class of imported goods, amounting to 30.3 per cent of the total. Crude materials amounted to 28.2 per cent; semimanufactures, 24.3 per cent; and finished manufactures, 17.2 per cent. Foods not produced in the U. S. and raw materials for U. S. industry constituted the most important imports. Table IX presents a breakdown of U. S. exports and imports by economic classes.

Western hemisphere countries are the leading market for American exports and the most important source of United States imports. In 1950 Canada and the other American Republics supplied 57 per cent of United States imports and bought about 47 per cent of total exports. The importance of western hemisphere countries in the foreign trade of the United States increased greatly during the war and postwar period—prewar these countries supplied only 34.7 per cent of U. S. imports and received 32.6 per cent of U. S. exports. As a result of the war, economic disruption and political developments, Europe and the Far East have declined in importance as sources of U. S. imports. From the 1936–38 period to 1950, imports from Continental Europe dropped from 29.1 to 16 per cent of total U. S. imports; imports from the Far East dropped from 30.4 to 19 per cent.

Latin America has expanded purchases of United States exports more than any other area. Compared with 16 per cent in the period 1936–38 and 22 per cent in 1946, the American Republics received 27 per cent of total U. S. exports during 1950.

The 1950 total came to $2,668 million, an increase of more than 5½ times over the prewar average, although lower than the peak value of $3,858 million in 1947.

Imports from Latin America totaled $2,907 million in 1950, showing an increase of more than 400 per cent over the 1936–38 average. The year 1950 marked the first postwar year in which imports from Latin America exceeded U. S. exports to that area. The 1950 trade surplus amounted to $339 million and marked a return to a more normal pattern of trade relations with this area which usually enjoys a trading surplus with the U. S. Heavy adverse trade balances in 1947, 1948 and 1949 had led the Latin American countries to impose severe restrictions on imports from the U. S. Improvement in 1950 allowed many of the countries of this area to ease these import curbs.

As usual, Canada was this country's trading partner. Exports to Canada totaled $2,016 million—representing 20 per cent of the total. Imports from Canada almost balanced the value of U. S. exports amounting to $1,957 million, an increase of 26 per cent over the 1949 figure. Booming industrial activity in both Canada and the United States accounted for the big volume of trade.

Perhaps the outstanding development during the year was the virtual disappearance—at least temporarily—of the "dollar shortage" which had dominated the earlier postwar period. This shortage which had amounted to $11,507 million in 1947 and $6,699 million in 1948 had been reduced to $2,297 million in 1950. Since American grants, gifts and net investments—amounting to about $6,000 million—exceeded this gap, foreign nations found themselves with a surplus of dollars which they used to increase their monetary and gold reserves.

The disappearance of the "dollar shortage" was largely due to the international "sellers" market for raw materials which developed after Korea. U. S. imports zoomed after the Communist invasion. In addition, the industrial comeback of Europe, assisted by Marshall Plan aid, and industrial development in some of the underdeveloped countries reduced foreign dependence on U. S. exports. The improved balance of payments and reserve positions of many countries led them to ease their restrictions on imports from the U. S. during 1950 and the first six months of 1951. Canada, for example, removed all curbs on U. S. imports on January 1, 1951.

Table X shows total exports and imports by leading countries and areas during the period 1936–49.

U. S. Foreign Investments

Before the First World War the United States was a debtor nation on capital account; foreign investments in the United States exceeded United States investments abroad by $3.7 billion in 1914. World War I, however, completely changed this condition and by the end of 1919, United States investments abroad exceeded foreign investments in the United States by approximately $3.7 billion. As a result of the great expansion of American foreign investments during the twenties, our net creditor position, excluding war debts, stood at $8.8 billion in 1930 as compared with $3.7 billion in 1919.

Foreign holdings in the United States, on the other hand, increased during the period 1933–39. Foreign capital, seeking safety from possible currency devaluation and the uncertainties of war, sought refuge through conversion into dollar holdings. Short-term dollar holdings of foreigners increased $2.8 billion between 1933 and 1939, while foreign holdings of American securities largely purchased in the stock market, increased by $1.4 billion. At the end of 1939, the net creditor position of the U. S. had declined to $1.8 billion.

This movement gave way in 1940–41 to a reduction of foreign holdings, principally by the British, to finance war purchases here. After the entry of the United States into the war, however, foreign holdings in the United States increased as government expenditures abroad for the procurement of materials and for the pay and maintenance of troops resulted in substantial acquisitions of dollar balances by foreign countries. These large foreign dollar balances were largely maintained during 1946 so that the net creditor position of the U. S. amounted to only $.8 billion at the end of that year.

During 1947 the net creditor position of the United States rapidly increased as foreign countries reduced their dollar balances, liquidated U. S. securities, and drew on American loans to finance the huge gap between their payments and receipts of dollars. The United States government increased its total loans by $3.9 billion—largely as a result of drawings on the British loan—and the net increase in private long and short-term credit amounted to $727 million. Foreign-held dollar assets were reduced by $2.2 billion. As a result of these developments the net creditor position of the United States exceeded $12 billion at the end of 1947.

The net creditor position of the U. S. has continued to increase since 1947, but at a slower rate. U. S. foreign aid during this period has been in grants rather than loans, and drains on foreign dollar holdings were reduced by restricting imports from the U. S. Moreover, the net outflow of private investment has not been large during the postwar period. Profitable investment opportunities at home, rampant nationalism abroad, and foreign restrictions on the remittance of earnings and principal have slowed private capital exports. At the end of 1949 (see Table XI), the net creditor position of the U. S. on investment account exceeded $15 billion.

TABLE XI: Debtor-Creditor Position of the U. S., End of 1949

(In billions of dollars)

Source: U. S. Department of Commerce.

Investments	1949
U. S. investments abroad:	
Private	19.3
Long-term	17.8
Direct	12.5
Foreign dollar bonds	1.7
Securities payable in local currencies	2.0
Other long-term	1.5
Short-term	1.5
Deposits	.4
Other short-term	1.1
U. S. government	13.5
Long-term	13.2
Short-term	.3
Total U. S. investments abroad	32.8
Foreign investments in U. S.:	
Private	13.9
Long-term	7.8
Direct	3.1
Corporate stocks	2.7
Corporate bonds[1]	.5
Other long-term	1.6
Short-term	6.0
Deposits	5.6
Other short-term	.5
U. S. government obligations	3.8
Long-term	.5
Short-term	3.3
Total foreign investments in U. S.	17.6
Net debtor (−) or creditor (+) position	+15.2

[1] Corporate bonds include an estimate of $95,000,000 for state and municipal obligations. NOTE: No allowance has been made for the value of direct investments abroad damaged during the war, written off, or expropriated without compensation. Holdings of portfolio securities of former enemy countries, or countries where no realistic valuation is obtainable, have been excluded. The estimates are based chiefly on data collected by the U. S. Treasury Department during the war and published in *Census of Foreign-Owned Assets in the United States, 1945*, and *Census of American-Owned Assets in Foreign Countries, 1947*. These data were brought up to date on the basis of all available information, but they may be subject to error.

International Bank

The International Bank for Reconstruction and Development, established under the Bretton Woods Agreement, began operations in 1947.

The Bank has an authorized capital of $10 billion of which $8,338.5 million has been subscribed by the 49 member nations (Poland, which was an original member of the Bank and Fund, has withdrawn from membership). In accordance with the Bank's charter only 20 per cent of the subscribed capital has been paid in. As of June 30, 1951, the aggregate paid-in capital was the equivalent of $1,664.1 million, of which $734.7 million was in gold or U. S. dollars.

In addition to its paid-in capital, the Bank may obtain funds through the sale of securities and is authorized to guarantee loans made by other agencies. Total loans and guarantees made by the Bank are limited to its subscribed capital. The Bank began its borrowing operations on July 15, 1947 and two bond issues totaling $278 million in securities were sold in the U. S. An issue of $100 million was refunded at a lower rate in 1950. In addition, the equivalent of $10.6 million was realized by offerings of bonds in Switzerland during 1948 and 1950.

Up to mid-1951, 44 loans aggregating $1,095.8 million were made to 22 countries. Of the total funds loaned by the Bank, up to the middle of 1951, almost 90 per cent has been in U. S. dollars. Table XII shows the amount and date of the loans made by the International Bank.

The Bank finances or assists in financing, on a non-political basis, projects for the reconstruction of war-damaged economies and for the development of underdeveloped countries. The loans made must be guaranteed by the borrowing country. The U. S. subscription to the Bank's capital is $3,175 million and this country has approximately one-third of the voting control of the Bank.

During its first two years, the Bank's loans were predominantly to Europe for reconstruction. More lately, the Bank has directed its attention to development loans, particularly in Latin America.

TABLE XII: Loans of the International Bank, July, 1951

(in millions of U. S. dollars)

Country	Date of Agreement	Rate	Amount of loan
Australia	Aug., 1950	4¼	100.0
Belgium	Mar., 1949	4¼	16.0
Brazil	Jan., 1949	4½	75.0
	May, 1950	4¼	15.0
	Jan., 1951	4¼	15.0
Chile	Mar., 1948	4½	13.5
	Mar., 1948	3¾	2.5
Colombia	Aug., 1949	3½	4.9
	Nov., 1950	4	3.5
	Dec., 1950	4	2.6
	Apr., 1951	3⅞	16.5
Denmark	Aug., 1947	4¼	40.0
El Salvador	Dec., 1949	4¼	12.5
Ethiopia	Sept., 1950	4	5.0
	Sept., 1950	4	2.0
	Feb., 1951	4	1.5
Finland	Aug., 1949	4	12.5
	Oct., 1949	3	2.3
France	May, 1947	4¼	250.0
Iceland	June, 1951	4⅜	2.5
India	Aug., 1949	4	32.8
	Sept., 1949	3½	10.0
	Apr., 1950	4	18.5
Iraq	June, 1950	3¾	12.8
Luxemburg	Aug., 1947	4¼	11.8
Mexico	Jan., 1949	4½	24.1
	Apr., 1950	4½	26.0
	Oct., 1950	3½	10.0
Netherlands	Aug., 1947	4¼	191.0
	May, 1948	4¼	4.0
	July, 1948	3⅜	12.0
	July, 1949	4	8.8
Nicaragua	June, 1951	4⅜	3.5
	June, 1951	4	1.2
Thailand	Oct., 1950	3¾	3.0
	Oct., 1950	4	13.0
	Oct., 1950	3¼	4.4
Turkey	July, 1950	3⅞	3.9
	July, 1950	4¼	12.5
	Oct., 1950	3¾	9.0
U. of So. Africa	Jan., 1951	3¾	20.0
	Jan., 1951	4	30.0
Uruguay	Aug. 1950	4¼	33.0
Yugoslavia	Oct., 1949	5	2.7
Total	.....	...	1,095.8

Foreign Exchange

The obvious difference between foreign and ordinary domestic trade is the fact that the buyer and seller use different currency units. The United States exporter wants payments in dollars; the British importer uses sterling in making his purchases and sales. The price which the American importer pays for the foreign currency is called the rate of exchange. Like all prices, exchange rates are basically influenced by the forces of supply and demand. However, almost all governments now maintain fixed values for their currencies in terms of those of other countries.

American importers offer dollars to the banks in order to obtain foreign purchasing power. Consequently, importers and those who are making foreign payments, such as tourists traveling abroad, persons sending funds to relatives in foreign countries, and businessmen paying premiums to insurance companies abroad, create a demand for foreign currencies. Exporters selling to foreign buyers, motion picture companies receiving royalties on films exhibited abroad and investors receiving interest on foreign investments, create the supply of foreign currencies since the foreign debtor must offer his own currency to obtain the dollars with which to make payment to the American creditor.

A world picture of total supply of and demand for dollars over a period of a year is presented by the annual summary of our international balance of accounts. Figures for 1950 and the first half of 1951 appear in Table XIII.

It will be noted that this table shows how the excess of U. S. receipts over payments was financed. Since the net total of U. S. government grants, private gifts, and public and private credit exceeded the gap between U. S. receipts and payments on current accounts, foreign countries were able to increase their dollar holdings and import gold from this country.

Monetary Fund

The Monetary Fund was established to promote world trade by insuring the stability of exchange rates. Exchange instability had disrupted international trade during the thirties. Member nations under the Fund agreement are bound to maintain stable exchange rates and may not use exchange depreciation as a competitive weapon in seeking to expand foreign markets for their products.

Forty-nine nations are members of the Fund; total quotas amount to $8,036.5 million, the United States subscription of $2,750 billions representing 32.4 per cent of the total; this country exercises about 30 per cent of the voting control of the Fund.

The Fund is basically a pool of the world's currencies. While currencies may be devalued to correct a fundamental disequilibrium in a country's balance of accounts, this action may be taken only after consultation with the Fund. When a member nation experiences a temporary shortage of foreign exchange—or the currency, of another member nation—it may, in effect, borrow the required currency from the Monetary Fund. The Fund began stabilization operations in March, 1947, and has (up to Mar. 31, 1950) made loans totaling $794.9 million, of which $751.26 million have been in U. S. dollars. Stabilization loans have been made to 19 countries, including Belgium, Chile, Denmark, France, India, Mexico, the Netherlands, Norway, Turkey, the United Kingdom, Costa Rica, Egypt, Czechoslovakia, Ethiopia, Nicaragua, the Union of South Africa, Australia, Yugoslavia and Brazil.

The announcement, Sept. 18, 1949, of a 30.5 per cent devaluation of the British pound created an upheaval in foreign-exchange values. By Sept. 30, 25 other countries announced adjustments in their exchange rates, devaluation varying from 9.1

TABLE XIII

International Transactions of the United States, 1948–51

(Millions of dollars)

Source: U. S. Department of Commerce.

Type of transaction	1948 total	1949 total	1950					1951	
			Total	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter[1]	Second quarter[1]
Exports of goods and services:									
Recorded goods	12,653	12,051	10,273	2,366	2,510	2,451	2,947	3,329	4,100
Other goods[2]	693	286	385	73	105	47	159	79	130
Total goods	13,346	12,337	10,658	2,439	2,615	2,498	3,106	3,408	4,230
Services	2,246	2,232	2,024	455	526	519	524	590	665
Income on investments	1,375	1,405	1,743	363	385	477	518	443	455
Total exports	16,967	15,974	14,425	3,257	3,526	3,494	4,148	4,441	5,350
Imports of goods and services:									
Recorded goods	7,124	6,622	8,852	1,889	1,931	2,390	2,642	3,029	2,950
Other goods[2]	698	444	463	71	76	143	173	170	150
Total goods	7,822	7,066	9,315	1,960	2,007	2,533	2,815	3,199	3,100
Services	2,162	2,184	2,376	494	577	751	554	589	705
Income on investments	284	353	437	76	125	90	146	83	95
Total imports	10,268	9,603	12,128	2,530	2,709	3,374	3,515	3,871	3,900
Surplus of exports of goods and services:									
Recorded goods	5,529	5,429	1,421	477	579	61	305	300	1,150
Other goods[2]	−5	−158	−78	2	29	−96	−14	−91	−20
Total goods	5,524	5,271	1,343	479	608	−35	291	209	1,130
Services	84	48	−352	−39	−51	−232	−30	1	−40
Income on investments	1,091	1,052	1,306	287	260	387	372	360	360
Total surplus of exports	6,699	6,371	2,297	727	817	120	633	570	1,450
Means of financing surplus of exports of goods and services:[3]									
Liquidation of gold and dollar assets by foreign countries	780	−60	−3,645	−459	−679	−1,544	−963	−745	−55
Dollar disbursements by:									
International Monetary Fund	203	99	−20	−12	....	−8	....	−10	
International Bank	176	38	37	17	11	2	7	16	
U. S. Government sources:									
Unilateral transfers	4,157	5,321	4,120	1,023	1,122	865	1,110	1,040	1,220
Long- and short-term loans	886	647	164	82	39	37	6	57	50
U. S. private sources:									
Remittances	678	522	481	123	124	107	127	110	100
Long- and short-term capital[4]	856	589	1,316	42	182	836	256	186	190
Total means of financing	7,736	7,156	2,453	816	799	295	543	654	1,505
Errors and omissions	−1,037	−785	−156	−89	18	−175	90	−84	−55

[1] Estimates based on incomplete data; second quarter by Council of Economic Advisers. [2] Includes goods sold to or bought from other countries that have not been shipped from or into the United States customs area, and other adjustments. [3] All figures for means of financing are on a net basis. [4] Excludes purchases or sales of obligations issued by the International Bank for Reconstruction and Development.

per cent by Canada to 30.5 per cent by most countries in the sterling area.

These adjustments, which were approved by the Fund, seem to have helped bring prices in different countries into better alignment and to have restored price competition in international markets.

TABLE XIV

Par Values of Member Currencies*

Source: International Monetary Fund.

Member	Currency	U. S. cents per currency unit	Currency units per U. S. dollar
Australia	Pound	224.000	.446 429
Austria	Schilling	†	†
Belgium	Franc	2.000 00	50.000 0
Bolivia	Boliviano	1.666 67	60.000 0
Brazil	Cruzeiro	5.405 41	18.500 0
Canada	Dollar	**	**
Chile	Peso	3.225 81	31.000 0
China	Yuan	†	†
Colombia	Peso	51.282 5	1.949 98
Costa Rica	Colón	17.809 4	5.615 00
Cuba	Peso	100.000	1.000 00
Czechoslovakia	Koruna	2.000 00	50.000 0
Denmark	Krone	14.477 8	6.907 14
Dominican Republic	Peso	100.000	1.000 00
Ecuador	Sucre	6.666 67	15.000 0
Egypt	Pound	287.156	.348 242
El Salvador	Colón	40.000 0	2.500 00
Ethiopia	Dollar	40.250 0	2.484 47
Finland	Markka	.434 783	230.000
France	Franc	‡	‡
Greece	Drachma	†	†
Guatemala	Quetzal	100.000	1.000 00
Honduras	Lempira	50.000 0	2.000 00
Iceland	Króna	6.140 36	16.285 7
India	Rupee	21.000 0	4.761 90
Iran	Rial	3.100 78	32.250 0
Iraq	Dinar	280.000	.357.143
Italy	Lira	†	†
Lebanon	Pound	45.631 3	2.191 48
Luxemburg	Franc	2.000 00	50.000 0
Mexico	Peso	11.560 7	8.650 00
Netherlands	Guilder	26.315 8	3.800 00
Nicaragua	Córdoba	20.000 0	5.000 00
Norway	Krone	14.000 0	7.142 86
Pakistan	Rupee	30.225 0	3.308 52
Panama	Balboa	100.000	1.000 00
Paraguay	Guaraní	16.666 7	6.000 00
Peru§	Sol	.....	.....
Philippines	Peso	50.000 0	2.000 00
Syria	Pound	45.631 3	2.191 48
Thailand	Baht	†	†
Turkey	Lira(pound)	35.714 3	2.800 00
Union of South Africa	Pound	280.000	.357 143
United Kingdom	Pound	280.000	.357 143
United States	Dollar	100.000	1.000 00
Uruguay	Peso	†	†
Venezuela	Bolívar	29.850 7	3.350 00
Yugoslavia	Dinar	2.000 00	50.000 0

* As of July 15, 1950. † Par value not yet established. ‡ Since Jan. 26, 1948, no par value agreed with Fund. § In Nov., 1949, Peru introduced a new exchange system under which the par value of 6.50 soles per U. S. dollar, agreed on Dec. 18, 1946, will no longer govern any transactions. No new par value has been proposed to the Fund. ** No fixed value. Fluctuates at about 93 U. S. cents per Can. $.

The five-year postwar adjustment period during which member nations of the Fund may maintain exchange restrictions expires in March 1952. Thereafter, exchange restrictions cannot be continued without the approval of the Fund. Table XIV lists the par values of currencies of the Fund's member nations.

Trade Agreements

The economic warfare of the thirties brought distress to all of the nations of the world—to those imposing the trade restrictions as well as those against whom the restrictions were aimed. This economic warfare was one of the most potent causes of the Second World War.

The realization of this truth has influenced United States foreign policy during the postwar period. The United States has taken the lead in proposing the renunciation of economic warfare and a cooperative approach to the restoration of world trade and prosperity. The American program includes the mutual scaling down of tariffs under the Reciprocal Trade Agreements program, the establishment of an International Trade Organization and the adoption of a trade charter in which the nations of the world will agree to eliminate restrictive trade practices. It also includes exchange stabilization through the Monetary Fund, and loans, either direct or through the World Bank, to assist in the reconstruction of war-shattered economies and the development of industrially backward areas.

An outstanding achievement in the American program to bring about freer international trade was the conclusion on October 30, 1947 at Geneva of the General Agreement on Tariffs and Trade. The scope of the Agreement is indicated by the fact that the 23 participating countries accounted for more than three-quarters of the world's prewar international trade. The tariff concessions resulting from the Geneva negotiations listed over 45,000 separate items and covered approximately two-thirds of the trade between the participating countries.

A second round of tariff negotiations was held at Annecy, France, in 1949. Agreements were concluded with ten additional nations, raising the number subscribing to the General Agreement on Tariffs and Trade to 33. At Annecy, the U. S. granted tariff concessions on about 400 items, representing 3 per cent of total imports.

A third round robin of tariff reductions took place in Torquay, England, September 1950 to April 1951. At this conference, the U. S. concluded agreements with six additional countries: Austria, Western Germany, Indonesia, Korea, Peru and Turkey. In addition, new concessions were negotiated with 12 countries which were al-

TABLE XV

U. S. Trade Agreements Signed

Country	Signed	Effective
Argentina	Oct. 14, 1941	Nov. 15, 1941
Australia	Oct. 30, 1947	Jan. 1, 1948
Austria	April 21, 1951	Not ratified
Belgium	April 21, 1951	June 6, 1951
Brazil	April 21, 1951	Not ratified
Burma	Oct. 30, 1947	July 30, 1948
Canada	April 21, 1951	June 6, 1951
Ceylon	Oct. 30, 1947	July 30, 1948
Chile	Oct. 30, 1947	March 16, 1949
China	Terminated	.....
Colombia	Sept. 13, 1935	May 20, 1936
Costa Rica	Nov. 28, 1936	Aug. 2, 1937
Cuba	Oct. 30, 1947	Jan. 1, 1948
Czechoslovakia	Terminated	.....
Denmark	April 21, 1951	Not ratified
Dominican Republic	April 21, 1951	June 6, 1951
Ecuador	Aug. 6, 1938	Oct. 23, 1938
El Salvador	Feb. 19, 1937	May 31, 1937
Finland	Oct. 10, 1949	May 25, 1950
France	April 21, 1951	June 6, 1951
Greece	Oct. 10, 1949	March 9, 1950
Guatemala	April 24, 1936	June 15, 1936
Haiti	Oct. 10, 1949	Jan. 1, 1950
Honduras	Dec. 18, 1935	March 2, 1936
Iceland	Aug. 27, 1943	Nov. 19, 1943
India	Oct. 30, 1947	July 9, 1948
Indonesia	April 21, 1951	Not ratified
Iran	April 8, 1943	June 28, 1944
Italy	April 21, 1951	Not ratified
Korea	April 21, 1951	Not ratified
Lebanon	Oct. 30, 1947	July 30, 1948
Liberia	Oct. 10, 1949	May 20, 1950
Luxemburg	April 21, 1951	June 6, 1951
Mexico	Terminated	.....
Netherlands	April 21, 1951	June 6, 1951
New Zealand	Oct. 30, 1947	July 31, 1948
Nicaragua*	Oct. 10, 1949	May 28, 1950
Norway	April 21, 1951	August 2, 1951
Pakistan	Oct. 30, 1947	July 31, 1948
Paraguay	Sept. 12, 1946	April 9, 1947
Peru	April 21, 1951	Not ratified
Southern Rhodesia	Oct. 30, 1947	July 12, 1948
Sweden	April 21, 1951	July 7, 1951
Switzerland	Jan. 9, 1936	Feb. 15, 1936
Syria	Oct. 30, 1947	July 31, 1948
Turkey	April 21, 1951	Not ratified
Union of South Africa	Oct. 30, 1947	June 14, 1948
United Kingdom	Oct. 30, 1947	Jan. 1, 1948
Uruguay	Oct. 10, 1949	Not ratified
Venezuela	Nov. 6, 1939	Dec. 16, 1939
Western Germany	April 21, 1951	Not ratified

* The duty concessions and certain other provisions of the agreement ceased to be in force as of March 10, 1938.

ready parties to the General Agreement on Tariffs and Trade. In the Torquay negotiations, the U. S. received concessions on an estimated half billion dollars of 1949 exports.

Through the trade-agreements program, the incidence of the U. S. tariff has been greatly reduced. Tariffs on imports of dutiable goods, which averaged 53 per cent in 1930–33 under rates established by the Hawley-Smoot Act, have been reduced to less than 15 per cent. Despite the concessions granted, however, rates on many products, particularly manufactured goods, remain so high as to make sales in the U. S. difficult.

The Reciprocal Trade Agreements Act under which U. S. tariff negotiations are conducted was originally passed in 1934 and was last extended in 1951 for a two-year period. Under the provisions of the Act, the President is authorized to seek concessions from foreign countries for American trade and commerce in return for similar concessions granted their products by the United States. The President has the power to increase or decrease tariff rates (since the 1945 extension, those in effect on January 1, 1945) by 50 per cent.

The 1951 extension of the Act put curbs on the President's power in making concessions. Under the so-called "peril points" provision, the Tariff Commission must advise the President on the limits beyond which concessions could not be made without endangering U. S. industry. It also requires that "escape clauses" be included in all agreements which permit the termination of concessions granted by the U. S. if injury to American industry results. In addition, the 1951 extension directed the President to take steps to deny the Soviet Union and its satellites all concessions granted by the U. S. under the Reciprocal Trade Agreements program. The U. S. has already notified these governments of the withdrawal of concessions.

Since 1934, reciprocal trade agreements have been concluded with 53 nations (*see* Table XV), with which we did more than 80 per cent of our normal foreign trade and which includes nine of our ten best customers in 1937. The agreement with Mexico, however, has been terminated, effective Jan. 1, 1951.

Led by the United States, representatives of 53 nations signed the charter of the International Trade Organization in Havana on March 24, 1948. The charter provides a set of rules under which world trade is to be conducted on a freer, nondiscriminatory basis. It seeks to outlaw economic warfare between nations. The charter provides that a U. N. agency, the International Trade Organization, is to be set up to administer the rules.

The charter contains 106 articles divided among 9 chapters. Nations adhering to the charter agree, subject to specified exceptions, to take appropriate action to maintain full employment; to avoid discrimination against the trade of other signatory countries; to reduce tariffs and other barriers to trade; to eliminate quotas and other quantitative restrictions on trade; to curb activities of cartels; to simplify cus-

toms regulations and other administrative barriers to trade; and to conduct state trading activities in accordance with commercial principles. The charter also makes provision for international co-operation to develop industrially backward areas and sets up principles governing the negotiation and operation of international commodity agreements.

The charter will become effective 60 days after the twentieth country ratifies the document. Few countries, however, have ratified the document, and no effort was made to secure U. S. ratification at the 1951 session of Congress. Meanwhile, the trading rules set up in the General Agreement on Tariffs and Trade are being observed by the participating countries.

LABOR DEVELOPMENTS IN 1951

The national emergency overshadowed labor developments in 1951. On January 26, a complete freeze of compensation was imposed, making it unlawful to grant pay boosts of any kind. There followed a succession of stopgap regulations loosening up the original tough pay control order. Some of these regulations were designed to take care of specific cases, such as the coal mines wage agreement; others, to permit continuance of familiar industrial practices —cost-of-living escalator arrangements, merit increase programs, etc. One regulation (the so-called "catch-up" regulation, setting a 10% ceiling on general increases) precipitated a walkout of the three labor members of the Wage Stabilization Board. For about three months, the Board limped along, with Economic Stabilizer Eric Johnston making all the major decisions on pay stabilization. Meanwhile, there was heavy behind-the-scenes pressure by the chiefs of organized labor for the Administration to give labor a greater say in all mobilization policy.

The WSB finally began to function fully again in May, when it was reconstituted with additional members and increased powers. A tripartite body of 18 members was set up with power to dispose of "dispute" cases in which management and labor were at odds over bargaining issues—including nonwage matters. Within a short time, the Board began to accelerate its issuance of new regulations to deal with problems that had been hanging fire, as well as to revise drastically earlier regulations which had not worked out too well in business practice.

One of the WSB's most vexing dilemmas was to attempt to hold the line on wages by adherence to a "ceiling" policy related to the rise in living costs. Although it fixed 10% as the limit of general increases, the Board had to recognize that there were many important contracts in major industries—autos and meat packing, for instance—which called for pay boosts above that limit. The Board adopted a realistic approach and allowed the ceiling to be pierced in various ways—by approval of productivity clauses, special disppsition of contract settlements, etc. Ultimately, it allowed cost-of-living escalation of wages and salaries, even where that had not been a company's practice before the freeze. And, of course, there was special treatment accorded such "fringes" as vacations, shift premiums, holidays and call-in pay.

The WSB's main task as 1951 wore on was to attempt to hold the line, making as few concessions to wage inflation as it realistically could. By mid-1951, there was evidence that some measure of stabilization had been achieved. The monthly increase in the Consumers' Price Index had been slowed down to fractions of index points from March through July, although the annual rise from the outbreak of Korean hostilities to June 1951 reached 15.3 index points, a jump of 9%. Although the index continued to achieve "all-time highs" throughout the summer months of 1951, there were no month-to-month spurts like those experienced in January (3.2 points) and February (2.6).

Inter-union rivalries grew hotter in 1951. The left-wing outcasts from the CIO waged steady, bitter jurisdictional war with their right-wing counterparts. In general, the right-wing groups prevailed; although in some vital defense industries (e.g., General Electric's main plant at Schenectady) the left-wing groups managed to hold their own. Copper miners, too, continued in the left-wing fold. In that industry, a critical shortage developed in the summer, when a bargaining stalemate stopped production for about 10 days. Production was resumed when the President invoked the cooling-off procedure of the Taft-Hartley Law.

One by-product of the Korean outbreak was formation of the United Labor Policy Committee, made up of CIO, AFL and independent bigwigs—but not John L. Lewis. Creation of the Committee led to speculation that "organic unity" of the AFL and CIO was not far off. This prospect evaporated when the AFL withdrew from the Committee on the ground that the CIO had benefited disproportionately from it. The rift was widened in September by reports of declaration of open warfare by AFL executive-board members.

Manpower supply loomed as an increas-

ingly serious problem in some industries and areas. Machine tools felt the pinch hardest. The shortage of skilled help in this industry prompted extraordinary measures by Defense Mobilizer Wilson. He urged Selective Service to grant special deferments to machine-tool workers and requested the WSB to provide the kind of wage adjustments in the industry which would attract and hold workers. At the same time, the National Production Authority set up a system of superpriorities to meet the industry's material needs.

Other skills were in short supply—engineers, chemists, physicists—and employers extended themselves to recruit the men they needed. But, by contrast, there were many areas and industries in which there were recurrences of the "priorities unemployment" experienced in the early days of World War II. Fortunately for the industrial mobilization program, the draft did not bite as deeply into the manpower which industry needed, as had been feared in the fall and winter of 1950.

All in all, the national labor force in 1951 reached an all-time high. At midyear, there were about 62,000,000 employed—approximately 6 million more than at the peak of war production in 1943 and 1944, and more than 40% of the nation's total population.

Terms Used in Labor Relations

ARBITRATION—Referring disputes between employers and employees to the binding decision of impartial third parties.

BARGAINING UNIT—A group of employees composed of workers in a single craft, plant, company, area, or industry for purpose of bargaining collectively with their employer or employers. Such units may be determined by traditional grouping of workers, or by NLRB or a state labor relations board.

BOYCOTT—A refusal by a union to work for or to purchase the goods or services of an employer involved in a labor dispute, or an attempt to induce others to withhold their labor or their purchases. *Secondary boycotts* involve an effort to induce parties not directly involved in a labor dispute to stop dealing with the employer.

CERTIFICATION—An official order of the National Labor Relations Board, the National Mediation Board, or a state labor relations board specifying that a union is free from employer domination, includes a majority of the employees in an appropriate unit in its membership, and is authorized to act as the collective bargaining agent for all the employees in the unit.

CHECKOFF—Employer deduction of union dues from the pay envelope of union members and payment of the funds to the union.

CLOSED SHOP—An employer may hire only members of the contracting union who must continue to remain members in good standing to keep their jobs.

CLOSED UNION—A union which, through high initiation fees or restrictive membership rules, seeks to limit the size of its membership in order to protect their job opportunities. (See *Union shop.*)

COLLECTIVE BARGAINING—The process of negotiation between employer and union for the purpose of reaching an agreement as to the terms and conditions of employment for a specified period.

COMPANY UNION—An employee organization whose membership is limited to the employees of a single plant or company, and which is not affiliated with any other labor organization. The term is frequently used to denote a company-dominated union, now illegal under the NLRA.

CRAFT UNION—Organizes workers on the basis of one of more related skills, regardless of the industries in which they work.

EMPLOYEE WELFARE FUNDS—Funds consisting of employer or joint employer-employee contributions based upon percentage of payroll or number of units produced, used in behalf of union members for health insurance, hospitalization, vacations, disability, and retirement. Administration of the fund may be by union, employer, or jointly.

FEATHERBEDDING—Union work rules which limit output or utilization of labor-saving devices.

ILLEGAL STRIKE—A work stoppage by union members in violation of a no-strike clause, or one which has not been properly voted upon or authorized by the proper union officials.

INDUSTRIAL UNION—Organizes all workers in a particular industry, skilled and unskilled. Predominant in the mass-production industries.

INJUNCTION—A court order which directs a person to take some action or to refrain from doing something. Violation is punishable as a contempt of court.

JURISDICTIONAL DISPUTE—A dispute between two or more unions over the right to organize the employees in a particular trade, industry or plant, or the right to perform a particular job.

LOCKOUT—A shutdown of operations by an employer to secure acceptance of his terms or in protest against union demands.

MAINTENANCE OF MEMBERSHIP—Employees who are union members at the

time the contract is signed and those who subsequently join the union must continue their membership as a condition of continued employment during the contract term.

MEDIATION—The process of attempting to reach a settlement or an agreement through the efforts of an outside person or agency such as the U. S. Conciliation Service.

OPEN SHOP—Union membership is not a condition of employment.

PICKETING—Stationing one or more persons of a labor organization at the plant gates or shop doors of an employer during a labor dispute for the purpose of informing the public generally and the employees that a dispute exists, persuading workers to join or continue a strike, and preventing persons from entering or going to work. If large numbers participate in parading or walking up and down in front of the struck premises, this is known as *mass picketing.*

SENIORITY—Job rights based on length of service; measured in relation to other employees, to a particular job or to employment in a department, division, plant, or company.

SHOP STEWARD—A person elected by the employees within a plant or department to represent them in the adjustment of grievances with the employer.

STRIKE—A temporary work stoppage by employees as a form of economic pressure to enforce a demand for wage increases, improved working conditions, or to secure action on a grievance.

UNFAIR LABOR PRACTICES—*By employers.* (1) Interference by employer with, restraint, or coercion of employees in the exercise of their right to self-organization and collective bargaining. (2) Employer domination or interference with the formation or administration of any labor organization or grant of financial or other support. (3) Discrimination in regard to hire or tenure of employment or any term or condition of employment by an employer in order to encourage or discourage membership in any labor organization. (4) The discharge or discrimination of an employee who files charges or gives testimony under the Act. (5) Refusal to bargain collectively with the representatives of employees.

By unions. (1) Restraining or coercing employees in the exercise of their legal right to refrain from joining unions. (2) Charging excessive initiation fees. (3) Persuading an employer to discriminate against employees. (4) Refusing to bargain collectively. (5) Participation in secondary boycotts and jurisdictional disputes. (6) Strikes by minority unions against certified unions. (7) Requiring payment for services not rendered. (8) Coercing an employer in his selection of his bargaining representatives.

UNION SECURITY—The closed or union shop or maintenance of membership. (See each term.)

UNION SHOP—All employees after hiring or within a specified period must become and remain members of a union.

WORKMEN'S COMPENSATION—Insurance systems established by law in various states providing payment to workers who suffer physical injury during their course of employment, irrespective of carelessness of worker or negligence of employer.

YELLOW-DOG CONTRACT—An agreement signed by an employee with his employer as a condition of employment setting forth the employee's promise that he would not join a labor union or otherwise participate in any concerted action. Such contracts are now outlawed by the NLRB under the terms of the Wagner Act.

Directory of Government Labor Agencies

DEPARTMENT OF LABOR—Principal operating units are: The Bureau of Labor Statistics, Bureau of Labor Standards, Wage and Hour and Public Contracts Divisions, Women's Bureau. Principal offices—Labor Department Building, Constitution Avenue at 14th Street, N. W., Washington, D. C. Secretary of Labor, Maurice J. Tobin.

1. Bureau of Labor Statistics: Collects and distributes labor information and publishes the results of special studies on various aspects of the labor field, such as wages in different industries; effects of the war on employment, production, and labor conditions; productivity of labor and industry; and industrial relations. This information is issued in special bulletins and in the Monthly Labor Review. The Bureau maintains five Regional Offices throughout the country with its principal office in the Labor Department Building, Wash., D. C. Commissioner: Ewan Clague.

2. Bureau of Labor Standards: Established in 1934 to develop desirable labor standards in industrial practice, labor law administration and labor legislation, and to make specific recommendations concerning methods and measures designed to improve the working conditions and the economic position of wage earners. Director: William L. Connolly.

3. Wage and Hour and Public Contracts Divisions: Enforce minimum wage and overtime pay requirements of Federal laws. There are ten regional offices throughout the country and four territorial offices, which carry out the inspection work of the Divisions. Administrator: William R. McComb.

4. Women's Bureau: Charged with formu-

lating standards and policies for promoting the welfare of wage-earning women, improving their working conditions, increasing their efficiency, and advancing their opportunities for profitable employment. Chief of the Bureau: Frieda S. Miller, Dept. of Labor Bldg., Wash., D. C.

Mediation and Conciliation Service—An independent agency under the direction of a Federal Conciliation and Mediation Director appointed by the President with the advice and consent of the Senate. Provides mediation services for disputes in interstate commerce, at the request of the parties or of its own volition. Principal office: Department of Labor Building. Director: Cyrus S. Ching.

National Labor Relations Board—An independent agency appointed by the President with the advice and consent of the Senate. Its principal functions are to determine employee representation and to decide unfair labor-practice cases. Chairman: George M. Herzog; General Counsel: George J. Bott. Principal office: Federal Security Bldg., South, 4th and Independence Ave., S.W., Washington 25, D.C. It maintains 22 regional offices.

National Mediation Board—Composed of three members appointed by the President, not more than two of whom may belong to the same political party. The Board investigates disputes over representation and mediates disputes concerning changes in rates of pay, rules or working conditions of employees subject to the Railway Labor Act. Principal office: General Services Administration Bldg., 18th and F Streets, N.W., Washington, D. C. Chairman: John Thad Scott, Jr.

National Railroad Adjustment Board—Settles grievances and disputes arising out of interpretation of agreements concerning pay, rules or working conditions. Chairman: C. E. Peck; Vice Chairman: H. J. Carr.

Wage Stabilization Board—A branch of the Economic Stabilization Administration. Controls wages. Composed of 18 members, 6 representing industry, 6 labor, and 6 the public. Chairman: Nathan P. Feinsinger. Principal office: Federal Security Bldg., 3rd and C Sts., N.W., Washington 25, D. C. It maintains 14 regional offices.

Salary Stabilization Board—A branch of the Economic Stabilization Agency. Controls salaries and compensation of employees exempt from the Wage-Hour Law, including executives. Composed of 5 members, all designated as representing the public. Chairman: Raymond B. Allen. Principal office: Federal Security Bldg., South, 4th and C Sts., S.W., Washington 25, D. C.

Labor Organizations

THE AMERICAN FEDERATION OF LABOR

The American Federation of Labor was founded in 1881 as the Federation of Organized Trades and Labor Unions of the United States and Canada, changing its name in 1886. Its basic approach was to organize workers by crafts and skills, rather than by geographical area as was the practice of the Knights of Labor which the AFL was successful in replacing. The present organizational structure is practically identical with that set up under the leadership of Samuel Gompers, president of the Cigar Makers International Union. The AFL is financed by per capita dues from each of the affiliated international unions which are autonomous, self-governing bodies. The Federation, however, has authority to fix the jurisdiction of its affiliated internationals, though it is not always able to enforce decisions. Federation officers are elected by annual conventions. The governing body between conventions is the Executive Council, elected by the convention.

The AFL consists of 107 international unions claiming 8 million members. Its principal activities are to aid constituent unions in organizing and bargaining, to promote or oppose legislation, litigate test cases in court, watch interpretation and enforcement of laws, represent its affiliates in tripartite government agencies, and act for its membership in international bodies. It also operates through city and state federations, and through councils or departments of allied crafts. The AFL has refrained from tying itself up too closely with any political party or government administration, but it has recognized the need for political education and action by organized labor by establishing in the year 1947 "Labor's League for Political Education." Most AFL unions are craft unions, although a number are industrial. By extension into a number of industries, some of the original craft unions have become multi-craft unions. The Brotherhood of Painters, Decorators, and Paper Hangers of America, AFL, is an illustration of a craft union whose jurisdiction includes building construction and maintenance work in many industries. Address: 901 Massachusetts Ave., N.W., Washington, D.C.

OFFICERS AND EXECUTIVE COUNCIL OF AFL—1951

William Green, President
George Meany, Secretary-Treasurer

W. L. Hutcheson	W. L. McFetridge
Matthew Woll	W. C. Birthright
James C. Petrillo	W. C. Doherty
Geo. M. Harrison	David Dubinsky
Daniel J. Tobin	Charles J. MacGowan
Harry C. Bates	Herman Winter

Daniel W. Tracy

CONGRESS OF INDUSTRIAL ORGANIZATIONS

The CIO resulted from a split within the AFL ranks. In order to organize the mass production industries, leaders of the industrial unions within the AFL won approval at the Federation's San Francisco convention in 1934 of a resolution endorsing industrial unionism in the automobile, cement, aluminum, and other mass-production industries. Failure of the AFL to organize the mass-production industries finally brought on a crisis at the 1935 convention at Atlantic City. Less than a month after this convention closed, led by John L. Lewis, Sidney Hillman, and David Dubinsky, the United Mine Workers, the Amalgamated Clothing Workers, the International Ladies Garment Workers Union, the United Textile Workers, the Oil Field, Gas and Refinery Workers, the International Union of Mine, Mill, and Smelter Workers founded the Committee for Industrial Organization. Other industrial unions shortly joined the Committee. In January, 1936, the Executive Council of the AFL ordered the CIO to dissolve and in August, upon its refusal to do so, suspended the ten unions. Disagreement on the desirability of reunification of labor led the ILGWU to return to the AFL, with John L. Lewis' UMW following suit later.

At present the Congress of Industrial Organizations includes 33 international unions with a claimed membership of approximately 6,000,000. The CIO has emphasized legislation as an aid to organization and collective bargaining drives. It has also formed a Political Action Committee to support candidates seeking public office whom it regards as pro-labor.

In 1950, the CIO completed the expulsion of the following unions on charges of Communist domination: United Electrical, Radio and Machine Workers; United Farm Equipment and Metal Workers; International Union of Mine, Mill and Smelter Workers; Food, Tobacco, Agricultural and Allied Workers; United Office and Professional Workers of America; United Public Workers; American Communications Association; International Fur and Leather Workers; International Longshoremen's & Warehousemen's Union; National Union of Marine Cooks and Stewards; and International Fishermen and Allied Workers. Their membership was estimated between 675,000 and 900,000. The CIO chartered rival unions to regain these workers and claims to have recaptured 70% of the membership.

The CIO is financed by per capita dues from each of the affiliated international unions which are autonomous, self-governing bodies, as in the AFL. Unlike the AFL, however, the parent organization has greater influence over the decisions of the individual unions. The CIO is governed by a General Executive Board, consisting of a representative from each international union. A smaller body of officers is elected by the annual convention. CIO headquarters: 718 Jackson Pl., Wash. 6, D. C.

OFFICERS OF CIO—1951

Philip Murray	President
Walter P. Reuther	Vice President
L. S. Buckmaster	Vice President
Joseph Curran	Vice President
Joseph A. Beirne	Vice President
Michael Quill	Vice President
Allan S. Haywood	Vice President
Emil Rieve	Vice President
Frank Rosenblum	Vice President
O. A. Knight	Vice President
James B. Carey	Secretary-Treasurer

INDEPENDENT UNIONS—It is generally estimated that 2,500,000 workers are organized in 69 independent unions, many of them operating as company- or plant-wide unions. Some are loosely united in the Confederated Unions of America, whose central headquarters are located at 809 "I" Street, N. W., Washington, D. C. The most important of the independents, however, are organized much like the international unions of the AFL and CIO, some of them having withdrawn from the AFL.

1. Railroad Brotherhoods. The most prominent of the railroad unions are the four independent train service unions, commonly referred to as the "Brotherhoods." Labor organization in the railroads is predominantly along craft or occupational lines. The "Big Four" unaffiliated unions represent craft elements in the industry. They include the Brotherhood of Locomotive Firemen and Enginemen, Brotherhood of Railroad Trainmen, Grand International Brotherhood of Locomotive Engineers, and the Order of Railway Conductors of America. Membership figures for the "Big Four" unaffiliated unions are as follows: Railway Conductors—37,562; Locomotive Firemen and Enginemen—102,932; Railroad Trainmen—210,624; Locomotive Engineers—79,667. Approximately 95% of the 1,400,000 employees on Class 1 railroads are covered by union agreements.

The railroad unions, except for the Railroad Trainmen and the Locomotive Engineers, attempt some form of united action through the Railway Labor Executives Assn., which includes some AFL unions.

2. Foreman's Association of America. The organization of supervisors became an active issue after the effective organization of production workers by the newly organized industrial unions. In 1941, foremen from numerous Detroit automobile plants organized an independent union, the Foreman's Association of America, which later expanded its membership into other industries and areas. FAA obtained a

contract from the Ford Motor Company in 1943 but met with resistance from other auto manufacturers. Organizational activities were aided by the decision of the National Labor Relations Board in 1945, holding that foremen were entitled to bargain collectively under the Wagner Act.

This trend was reversed by passage of the Taft-Hartley Law in June, 1947. By amendment of the Wagner Act, it eliminated supervisors from the statutory definition of employee, thereby denying organizational protection and mandatory collective bargaining rights to classes of supervisory employees. Shortly after this happened, FAA lost 13 of its chapters, including its largest group, at Packard. The union now claims 19,642 members with 92 chapters. Its headquarters are located at 1627 Cadillac Tower, Detroit, Mich.

3. United Mine Workers. Includes practically all the anthracite and bituminous coal miners in the U. S. It also operates a catch-all unit, District 50, which competes with AFL and CIO unions in a number of industries. The UMW withdrew from the AFL in December 1947 because of the refusal of the Executive Council to adopt John L. Lewis' proposal that its members refuse to sign the Taft-Hartley non-Communist affidavits. UMW membership is estimated at 600,000. Headquarters: 900 15th St., N.W., Washington 5, D.C.

Membership of Leading American Labor Unions

Source: Bureau of Labor Statistics.

Name of Union	Affiliation	Number of members[1]	Date
Amalgamated Clothing Workers	CIO	375,000	1950
Amalgamated Meat Cutters and Butcher Workmen	AFL	175,000	1950
American Federation of Musicians	AFL	237,000	1950
Bakery and Confection Workers' International Union	AFL	170,000	1950
Brotherhood of Locomotive Firemen and Enginemen	Ind.	102,932	1950
Brotherhood of Maintenance of Way Employees	AFL	171,356	1950
Brotherhood of Painters, Decorators, and Paperhangers	AFL	178,000	1950
Brotherhood of Railroad Trainmen	Ind.	210,624	1950
Brotherhood of Railway and Steamship Clerks	AFL	350,000[2]	1950
Building Service Employees' International Union	AFL	173,019	1950
Communications Workers of America	CIO	240,000	1950
Hotel & Restaurant Employees' International Alliance	AFL	400,000	1950
Industrial Union of Marine & Shipbuilding Workers	CIO	86,603[2]	1950
International Association of Machinists	AFL	600,000	1950
International Brotherhood of Boilermakers	AFL	200,000	1950
International Brotherhood of Electrical Workers	AFL	450,000	1950
International Brotherhood of Teamsters	AFL	1,103,000	1950
International Hod Carriers', Building, and Common Laborers' Union	AFL	267,500[3]	1950
International Ladies' Garment Workers' Union	AFL	431,000	1950
International Union of Mine, Mill, and Smelter Workers	Ind.[4]	91,400	1950
International Union of Electrical, Radio & Machine Workers	CIO	250,000[5]	....
Retail, Wholesale, and Department Store Union	CIO	65,000	1950
Textile Workers Union	CIO	373,770	1950
United Association of Plumbers and Steam Fitters	AFL	180,000	1950
United Automobile, Aircraft, & Agricultural Implement Workers	CIO	1,000,000	1950
United Brotherhood of Carpenters and Joiners	AFL	735,000	1950
United Electrical, Radio and Machine Workers	Ind.[4]	(6)	....
United Mine Workers	Ind.	600,000	1950
United Rubber, Cork, Linoleum and Plastic Workers	CIO	150,070	1950
United Steelworkers	CIO	975,000	1950

[1] Unless otherwise indicated, average dues-paying membership for first half of 1950 as submitted directly to Bureau of Labor Statistics on questionnaire. [2] Data appearing on union's journal or reports. [3] Per capita average annual membership as published in convention proceedings of AFL. [4] Expelled from CIO for Communist activity. [5] Estimated membership. [6] Not available.

Fair Employment Practice Laws

Discrimination in hiring, job tenure, or conditions of employment because of race, color, creed or national origin, is forbidden by the laws of these states: California, Colorado, Connecticut, Indiana, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Washington and Wisconsin.

The following cities also have ordinances: Chicago, Cleveland, Gary, Milwaukee, Minneapolis, Philadelphia and Youngstown.

Draft and UMT

Under pressure of the Korean fighting and the general deterioration of world relations, Congress enacted a new and tougher draft law, gave its approval to the country's first universal military training system. The new law, approved June 19, 1951, lowered the draft age to 18½, extended draft service to 24 months. Men are liable to draft call until they reach 26 —continue liable until age 35 if they are deferred for any reason. Married men are no longer deferred unless they have children or other dependents besides their wives. Mental and physical standards for induction are lowered to those prevailing in January, 1945. Reservists continue liable to call to active duty. Conscientious objectors may be required to do essential civilian work for 24 months. A ceiling of 5 million men is placed on the armed forces until July 31, 1954. Current build-up is on the basis of a 3½ million armed force but this figure is expected to be upped shortly. Draft law continues until July 1, 1955, but drafting may be ended when the President or Congress feel the emergency is over.

Universal Military Training will start when Congress sets up the system—a commission is now drafting proposals for the program. Men will go into military training on reaching 18, with deferments held to a minimum. After six months of training, they will be released to the reserves for a total service period of 8 years.

Who Must Serve

Men between the ages of 18 and 26 must register under the draft law; men 18½ through 25 are liable for military service. Liability for service lasts until age 35 for any person deferred from service for any reason. When called, service on active military duty for periods up to 24 months may be required, with an additional 6 years spent in the reserves.

The only exemptions from military service are for veterans, members of organized reserve units while they remain in those units, ministers and divinity students, aliens not admitted for permanent residence. Conscientious objectors will be assigned to noncombatant duty or to essential civilian work for 24 months. A sole surviving son in a family which lost a child or children in the Armed Forces may also be exempt.

Deferments

Men may be deferred from active service for limited or indefinite periods at their request. Deferment may be on the basis of dependency; essentiality of civilian work; to finish high school or college. Granting of deferment is in the discretion of the local draft board. Its decision may be appealed to the appeal board and then to the President. Request for deferment may be made by the draft registrant, his employer or his dependent.

Volunteers

Men between the ages of 18½ and 26 may voluntarily enlist in the army for 24 months (instead of the usual 48).

Doctors, Dentists

Special draft rules apply to doctors, dentists, veterinarians, optometrists, pharmacists and osteopaths. They are liable for induction up to age 51 for service up to 24 months.

UMT

A system of Universal Military Training has been set up under the draft law. However, it will not go into operation until special legislation is passed by Congress. Meanwhile, a National Security Training Commission is working out policies and standards for a UMT system to be passed on by Congress.

Reservists

The draft law gives the President authority to recall to active duty members of the reserves and retired members of the armed forces. This authority continues in effect until July 1, 1953. Reservists are called to duty individually on the basis of the need of the service for their skills. Large numbers of reservists were recalled after the outbreak of the Korean fighting. Once called, they must serve up to 24 months. However, this period may be shorter or longer depending on how critically the reservists' skill is needed by the service.

Reservists may receive deferment on their recall orders on the basis of essentiality of their civilian jobs, as students, or because of severe personal hardship in responding to the call. Whether or not request for deferment is granted depends on the discretion of the service involved.

The services have set up programs under which they will release reservists called to duty after Korea. In addition, the draft law requires release of inactive or volunteer reservists who were called up involuntarily. They must be released after serving 17 months on active duty since June 25, 1950, provided they had 12 months or more of service between 12/7/41 and 9/2/45. Exceptions are reservists with a critical rating who may be retained as long as needed.

Duration of Draft

Draft law is scheduled to end July 1, 1955. However, this doesn't affect the continued liability for draft of any men who were deferred. They continue to be subject to draft call until they reach 35. When drafting ends, UMT is to start.

Veterans' Benefits

Job Reinstatement

Veterans are entitled to be reinstated in the jobs they held when they went into service, provided they comply with conditions specified in the law. Re-employment rights apply to draftees, enlistees, and reservists, whether serving voluntarily or involuntarily. Veterans who qualify are entitled to their old job or one of similar seniority, status and pay. They are guaranteed against discharge, except for cause, for one year after reinstatement.

To qualify, the veteran must have left other than a temporary job to perform military service. He must be separated with a certificate of satisfactory service and apply for reinstatement within 90 days of his release. Persons who went into service before June 24, 1948, are not entitled to reinstatement if they are disabled, but those going into service after that date must be re-employed in jobs they can do even if disabled. Veterans who go into service after June 24, 1948, are not entitled to re-employment if their term of service exceeds 4 years. There is no restriction on length of service of veterans inducted before June 24, 1948.

Veterans who qualify must be reinstated unless the employer can prove that his circumstances have changed so as to make it impossible or unreasonable to re-employ the vetcran.

Beginning June 19, 1951, employees who are called up for induction or for training duty only must be given a leave of absence. After either rejection or release from training, they must be re-employed, provided they apply within 30 days of release. However, they are not entitled to the one-year guaranty of employment which applies to veterans.

Vocational Rehabilitation

Vocational rehabilitation courses not exceeding 4 years and placement in suitable, gainful employment are available for any veteran who served on or after September 16, 1940, and on or before July 25, 1947, and was honorably discharged with a service-connected disability which can be overcome by training. The benefits are also available to veterans disabled while on active duty on or after June 27, 1950, if their disability is one for which compensation is paid at full wartime rates. Veterans may begin training at any time after discharge. However, World War II veterans must wind up training by July 25, 1956. Veterans disabled after June 27, 1950, have 9 years from the end of the current emergency (date not yet set) in which to wind up training.

The Veterans Administration arranges for the training, pays for tuition and supplies. While in training and for two months after rehabilitation, the veteran may receive subsistence allowances in addition to his disability compensation. Rates are $75 a month (if no dependents), $105 (if one dependent), and $120 (if more than one) for veterans studying full time in school or college. Job trainees may collect $65 a month (if no dependents) or $90 (if one or more dependents). Additional allowances may be paid depending on the degree of disability and the number of additional dependents.

Disability Pensions

Veterans with a World War II service-connected disability are eligible for disability compensation. This is true also for veterans with service-connected disability which occurred on or after June 27, 1950. Discharge must be under conditions other than dishonorable. Monthly rates range from $15 to $150 depending on disability, plus awards up to $360 for amputation, etc. Veterans with 50% or more disability are eligible also for allowances for dependents.

Veterans permanently and totally disabled for reasons not traceable to military service are entitled to disability pensions. This applies to World War II veterans and to persons who went into service after June 27, 1950. The pension rates are $60 a month, increased to $72 after 10 years or when the veteran reaches age 65. Single veterans are ineligible if income exceeds $1,000 a year; veterans with a wife or minor child are ineligible if income exceeds $2,500 a year.

Veterans Preference

Veterans who have been separated from the service under honorable conditions must be given preference in certification for appointment, in appointment, in reinstatement, in re-employment and in retention in federal civil service positions. Specifically with respect to the positions of crier or bailiff in federal courts, the Court Crier or Bailiff Preference Act grants preference in appointment to veterans.

Insurance

Persons in active service on or after June 27, 1950, are automatically covered by free government insurance for $10,000. If they remain in service for more than 30 days, the protection continues for 120 days after separation. During this 120-day period, they can apply for government term insurance up to $10,000. This insurance cannot be converted into permanent insurance but can be renewed as term insurance. It is issued without medical examination.

Servicemen who hold insurance issued under the World War I or II government insurance programs may apply for waiver of the premiums while they are in service. The waiver applies for 120 days after separation. The insurance can be reinstated on compliance with the law's conditions.

Policies issued under World War I or II government insurance programs will continue in effect. But no new insurance will be issued under these programs except to disabled servicemen ineligible for commercial insurance.

Education

A veteran is entitled to free education if (a) he served 90 days or more between Sept. 16, 1940, and July 25, 1947; or (b) he enlisted or re-enlisted between Oct. 6, 1945, and Oct. 5, 1946. He must start his course within 4 years after his discharge. The program ends July 25, 1956. However, veterans who enlisted or re-enlisted between Oct. 6, 1945, and Oct. 5, 1946, have 9 years from the end of that enlistment or re-enlistment in which to wind up their training.

Veterans are entitled to education equal to war service plus one year, up to a maximum of 48 months.

The Veterans Administration will pay tuition and school fees up to a total of $500 for each school year in attendance at an approved institution. No board, lodging, or other living or travel expenses are paid, but while at school the veteran is entitled to $75 a month living allowance, $105 with one dependent, $120 if more than one. Subsistence payments will be reduced if earnings plus subsistence exceed $210 (if no dependents), $270 (if one), $290 (if more than one dependent).

A veteran may also elect to take apprentice or on-the-job training in an industrial establishment. He may collect subsistence of $65 a month, or $90 if he has dependents. Subsistence is reduced if earnings plus subsistence exceed $210 a month, $270 (with one dependent), $290 (with more than one dependent).

Loans to Veterans

Three types are available: (1) For purchase or construction of homes; (2) for purchase of farms and farm equipment; (3) for purchase of business and business property.

In all three types, eligibility requirements are that the veteran must have entered the armed service on or after September 16, 1940 and before July 25, 1947; he must have an honorable discharge after service of at least 90 days or a service-connected disability as reason for the discharge or release; application must be made by July 25, 1957.

The government guarantees 50% of a business loan, up to a maximum guarantee of $2,000; 60% of a home loan, up to a maximum guarantee of $7,500. Maximum interest rate is 4%. The government pays the interest for the first year on the guaranteed portion of the loan. Loans are repayable for periods up to 30 years. In areas where 4% mortgage financing is not available, direct government mortgage loans up to $10,000 may be made to veterans.

The unremarried widow of an eligible veteran who died in service or as a result of service-incurred disability is also eligible for all loan benefits.

Readjustment Allowance

Readjustment allowances are available to World War II veterans discharged after July 25, 1947. They have two years after discharge in which to apply, but all payments end July 25, 1952. Veterans who enlisted or re-enlisted between Oct. 6, 1945, and Oct. 5, 1946, have two years after their discharge to claim allowances. For them the program ends 5 years after the end of their enlistment or re-enlistment. Payments of $20 a week for 52 weeks go to unemployed veterans. Self-employed veterans earning less than $100 a month receive the difference between their net earnings and $100 a month.

Other Benefits

Veterans are also entitled to hospitalization and domiciliary benefits, to aid in acquiring specially adapted housing or automobiles if disabled, to guardianship service if incompetent, to burial benefits, and to death compensation and pensions payable to their dependents.

Social Security

The Social Security Act, enacted Aug. 14, 1935, and amended in 1939 and 1950, has eleven separate programs. Two are insurance systems involving pay-roll taxes: federal old-age and survivors' insurance and federal-state unemployment insurance. The other nine involve federal grants-in-aid to the states for needy persons who are aged, blind, or permanently disabled, and for dependent children; maternal and child-health services; crippled-children services; child-welfare services; public-health services; and vocational rehabilitation.

The administration of the Act is the responsibility of the Federal Security Administrator. Within the Federal Security Agency, the Social Security Administration, headed by Commissioner for Social Security, administers most of the programs.

TABLE NO. 1: Examples of Life-Insurance and Retirement Benefits

(Assuming 10 years' coverage)

Type of benefit	Average monthly wage					
	$50	$100	$150	$200	$250	$300
LIFE-INSURANCE BENEFITS:						
Widow and 1 child:						
Before Sept., 1950	$ 27.50	$ 34.37	$ 41.25	$ 48.12	$ 55.00	$ 55.00
Sept., 1950–June, 1952	40.00*	75.00	85.80	93.30	101.40	101.40
July, 1952, and after	40.00*	75.00	86.20	97.50	108.74	120.00
Widow and 2 children:						
Before Sept., 1950	38.50	45.00*	57.75	67.37	77.00	77.00
Sept., 1950–June, 1952	40.00*	80.00*	114.40	124.41	135.20	135.20
July, 1952, and after	40.00*	80.00*	115.00	130.00	145.00	150.00*
Burial payment:						
Before Sept., 1950	132.00	165.00	198.00	231.00	264.00	264.00
Sept., 1950–June, 1952	120.60	150.00	171.60	186.60	202.80	202.80
July, 1952, and after	120.60	150.00	172.50	195.00	217.50	240.00
RETIREMENT BENEFITS:						
Retired worker:						
Before Sept., 1950	22.00	27.50	33.00	38.50	44.00	44.00
Sept., 1950–June, 1952	40.00*	50.00	57.20	62.20	67.60	67.60
July, 1952, and after	40.00*	50.00	57.50	65.00	72.50	80.00
Wife or dependent husband:						
Before Sept., 1950	11.00	13.75	16.50	19.25	22.00	22.00
Sept., 1950–June, 1952	.....*	25.00	28.60	31.10	33.80	33.80
July, 1952, and after	.....*	25.00	28.75	32.50	36.25	40.00

* Reduced by ceiling.

The 1950 amendments nearly doubled benefits, made them payable to many more people, and extended coverage to 10,000,000 more persons.

Old-Age and Survivors' Insurance

The old-age and survivors' insurance program began in 1937, although only old-age lump-sum benefits were paid before 1940. It is the only wholly federal program.

Benefits

Benefits available to workers who are "fully insured" under the system are:

1. A monthly retirement benefit for a worker 65 or over.

2. A supplemental monthly benefit for a retired worker's wife, if she is 65 or over, or at any age if she has dependent children under 18 in her care; and for his children if under 18.

3. Monthly benefits to the following survivors of a deceased worker, regardless of his age at death: (*a*) Widow, if 65 or over; (*b*) Widow or divorced wife at any age if she has dependent children in her care; (*c*) Children, unmarried and under 18; (*d*) Parents, if 65 or over and dependent on the deceased, but only if the worker dies leaving no widow or child entitled to benefits.

4. A lump-sum benefit, which is paid the widow or widower, if he or she was living with the deceased at the time of death. If there is no such person, the persons paying the worker's burial expenses may be reimbursed for expenses paid. Lump-sum benefits can be paid under the above circumstances even if the worker was drawing old-age benefits before his death and his wife or child were also receiving benefits on his wages. Furthermore, the lump sum is not in place of monthly benefits payable later to survivors and does not affect their rights to monthly benefits.

Workers who are not "fully" insured but are merely "currently" insured are entitled only to those benefits for survivors listed under 3 (*b*), 3 (*c*), and 4 above.

Dependent husbands of working wives may receive a supplemental retirement benefit or a widower's benefit after 65, but only if the wife was both currently and fully insured. Children of working mothers may draw benefits on her wages, even if the father is present in the household, when the mother was currently and fully insured.

A worker is "fully" insured if he has been paid $50 in taxable employment in each of 40 quarters, or if he has worked in taxable jobs half the quarters after 1950 (or after becoming 21, if later) and before he reaches 65 or dies (at least 6 quarters are needed). (*See* Table 1A.)

A worker is "currently" insured if he has received wages of at least $50 in taxable employment in at least 6 of the 13 calendar quarters preceding and including the quarter in which he died.

Benefits to people now drawing them are raised on an average of 77½ %, according to a conversion table (Table 1B). Bene-

TABLE NO. 1A

Quarters of Coverage Needed to Receive Retirement Benefits

Time of 65th birthday	Quarters*	Time of 65th birthday	Quarters*	Time of 65th birthday	Quarters*	Time of 65th birthday	Quarters*
1954 Jan.–June	6	1958 July–Dec.	15	1963 Jan.–June	24	1967 July–Dec.	33
July–Dec.	7	1959 Jan.–June	16	July–Dec.	25	1968 Jan.–June	34
1955 Jan.–June	8	July–Dec.	17	1964 Jan.–June	26	July–Dec.	35
July–Dec.	9	1960 Jan.–June	18	July–Dec.	27	1969 Jan.–June	36
1956 Jan.–June	10	July–Dec.	19	1965 Jan.–June	28	July–Dec.	37
July–Dec.	11	1961 Jan.–June	20	July–Dec.	29	1970 Jan.–June	38
1957 Jan.–June	12	July–Dec.	21	1966 Jan.–June	30	July–Dec.	39
July–Dec.	13	1962 Jan.–June	22	July–Dec.	31	1971 on	40
1958 Jan.–June	14	July–Dec.	23	1967 Jan.–June	32		

* With wages of $50.00.

fits to people filing claims before May, 1952, will be figured as for people now drawing benefits, and therefore subject to the same 77½% increase. Benefits to people with 1½ years of work after 1950 will be figured by either the new formula or the old (plus conversion table), whichever is more favorable. But those under 21 will use the new formula only.

The amount of the worker's primary benefit—that paid to the worker when he reaches 65—is determined as follows:

Workers who do not have 6 quarters with wages of $50 after 1950:

(1.) Figure the worker's "average monthly wage" by dividing his total taxable wages by the number of months elapsed since January 1, 1937. (Since time elapsed is a factor, a person who has worked continuously in covered employment will receive a larger benefit than one who has worked in exempt employment part of the time or has been unemployed.)

(2.) Take 40% of the first $50 of the average monthly wage and add to it 10% of the remainder (not exceeding $200, however). Then add to this sum 1% for each year in which the worker received at least $200 in covered employment. The 1% increase applies only to years before 1951. If the resulting sum is less than $10, it is increased to $10.

(3.) Use the conversion table (Table 1B) to increase the monthly benefit.

Example: A worker was paid $3,000 a year for the years 1937 through 1950. He retires at the end of 1950 and becomes 65 in July, 1951. His monthly retirement benefit is computed as follows:

(a) His average monthly wage is $241.38 (total wages $42,000 divided by 3 times the quarters between 1937 and July, 1951, or 174).

(b) His benefit under the old law is $44.59; i.e., $20.00 (40% of $50) plus $19.13 (10% of $191.38) plus $5.46 (1% x 39.13 x 14 yrs.).

(c) His benefit under the new law (*see* Table 1B) is $68.50.

Workers who have 6 quarters with wages of $50 after 1950:

The benefit will be figured under either the old or new formula, whichever is more favorable to them. It will be either:

(1.) Computed under the old law and raised by the conversion table; or

(2.) Computed by the new formula, with the average wage figured on a "new start" basis as follows:

"Average monthly wage" is computed by dividing the worker's total taxable wages, beginning with 1951 and ending with the third quarter preceding that in which he

TABLE NO. 1B

Conversion Table Increasing Monthly Benefits

Benefit before Sept., 1950	Benefit starting Sept., 1950	Benefit before Sept., 1950	Benefit starting Sept., 1950	Benefit before Sept., 1950	Benefit starting Sept., 1950	Benefit before Sept., 1950	Benefit starting Sept., 1950
$10	$20.00	$20	$37.00	$30	$54.00	$40	$64.00
11	22.00	21	38.50	31	55.10	41	64.90
12	24.00	22	40.20	32	56.20	42	65.80
13	26.00	23	42.20	33	57.20	43	66.70
14	28.00	24	44.50	34	58.20	44	67.60
15	30.00	25	46.50	35	59.20	45	68.50
16	31.70	26	48.30	36	60.20	46	68.50
17	33.20	27	50.00	37	61.20		
18	34.50	28	51.50	38	62.20		
19	35.70	29	52.80	39	63.10		

is 65, by the number of months in this period (raised to 18 if less than that).

The formula used to compute the monthly benefit is as follows:

(a) If the average monthly wage is $50 or more, take 50% of the first $100;

(b) Add 15% of the next $200. The result is the worker's monthly benefit.

Example: A worker was paid $3,000 a year for the years 1937 through 1954. He retires at the end of 1954 and is 65 in August, 1955. His monthly retirement benefit is figured under whichever formula will give him the larger benefit.

(1.) Under the old law and the conversion table, the monthly benefit is $68.50.

(2.) His benefit under the "new start" formula is $72.50, computed as follows: His total wages for 1951 through 1954 ($12,000) are divided by the number of months in the period Jan. 1, 1951–Dec. 31, 1954. This gives an "average monthly wage" of $250. His monthly benefit is figured by taking 50% of $100 ($50) and adding 15% of $150 ($22.50), resulting in $72.50.

Since the benefit under the "new start" formula is larger than under the conversion, the "new start" formula is used.

If an employee's "average monthly wage" under the "new start" formula is less than $50, his monthly benefit is computed as follows (average monthly wage—monthly benefit): $30 or less—$20; $31—$21; $32—$22; $33—$23; $34—$24; $35 to $49—$25.

A benefit claim may be recomputed later to include subsequent earnings.

The amounts of other benefits are derived from the primary benefit as follows:

Child: retirement benefit of one-half the primary benefit; survivors' benefit of three-fourths the primary benefit (if only 1 child); if several children, each gets one-half, with an additional one-fourth divided among them.

Husband or wife: one-half primary benefit.

Widower or widow: three-fourths primary benefit.

Parent: three-fourths primary benefit.

Lump-sum benefit: 3 times the primary benefit. (If paid to persons paying burial expenses, other than the widow or widower, the benefit is limited to expenses incurred.)

Maximum total of benefits which may be paid on any one worker's wages is the least of the following: $150 or 80% of the worker's average monthly wage. If benefits are already $40 or less, they will not be further reduced.

A person earning more than $50 in a month in covered employment is not eligible for a benefit for that month. Benefits to a wife or child are also canceled during any month in which an insured worker earns more than $50.

Application for benefits is made to the nearest field office of the Social Security Administration.

Rates and Coverage

All employers covered by the federal insurance contributions law are required to pay a 1½% tax on wages paid to employees, and each employee also pays a 1½% tax on his pay. The rate was raised to 1½% from the original rate of 1% on January 1, 1950. The law calls for another increase in tax to 2% in 1954 and by gradual steps to 3¼% in 1970.

Neither employer nor employee is required to pay tax on that part of a worker's pay which is over $3,600 in any calendar year. If an employee does so because he worked for more than one employer, he may apply for a refund of excess tax at the end of the year. (Before 1951, this maximum was $3,000.)

Although these taxes are initially paid into the Treasury, a corresponding amount is appropriated yearly from the Treasury into the Old-Age and Survivors' Insurance Trust Fund, from which benefits are paid.

An employer is liable for payment and deduction of tax as soon as he employs one employee. The length of employment and the number of employees is immaterial.

The following workers are exempt, and no tax is incurred on their wages: self-employed with income under $400 a year; irregular agricultural labor; irregular domestics; casual labor not in the course of the employer's business; persons working for a son, daughter or spouse, or for a parent if the child is under 21; international organizations, including U. N., etc.; employees of nonprofit religious, charitable or educational organizations, unless coverage is elected voluntarily; railroad workers; certain employees of organizations exempt from income tax; student nurses and interns; workers on small fishing vessels; newsboys under 18; certain newspaper and magazine vendors; students employed by their schools.

Amendments to the law in August, 1950, covered for the first time regularly employed farm workers and domestic servants and self-employed business men (except farmers and some professionals). The tax rate for self-employed persons is 2¼%. They pay the tax annually along with their income tax.

Veterans of World War II, who would not otherwise have received wage credits for their time in the service, were in 1946 voted special coverage in the event of death within 3 years after discharge. In such cases they are considered to have died fully insured, to have an average monthly wage of at least $160, and to have had $200 annual wages for each year of at least 30 days' active service.

Also, for every month a veteran was in military service between Sept. 16, 1940, and July 24, 1947, he will now automatically be given credit for $160 in wages. This will help him to qualify for benefits and will go towards the average wage figure on which benefits are based.

Board Wage Records

Every employee must have a social security number. An account with the Social Security Administration is set up for each worker, and to this account are credited all wage payments reported. When a benefit claim is filed, these accounts are used to determine if the claimant is eligible for benefits and, if he is, the amount of the benefit to be paid.

Unemployment Compensation

Federal and state governments co-operate in the administration of the unemployment insurance program. The federal law, beginning with 1936, imposed an excise tax on employment and established the framework for the federal-state system. All states (including District of Columbia, Hawaii and Alaska) followed suit, most of them in 1936 and 1937. Benefits became payable in most states in 1938 and 1939. (Wisconsin was the only state to pass such a law earlier—taxes were first collected in July, 1934.)

Benefits

The state laws determine who shall receive unemployment benefits, in what amount, and under what conditions. The provisions vary in each state, but generally a person is entitled to benefits for any week during which he is totally or partially unemployed, provided he has earned a sufficient amount of wages from an employer subject to the state law, has filed a claim for benefits, has served a "waiting period" of a week (not required in some states), and is not disqualified.

Disqualification means that the payment of benefits is postponed for a certain number of weeks, or is suspended entirely, because the worker is in one of the following situations:

1. Not able to work—ill, aged or disabled to the point that he cannot perform any marketable services.

2. Not available for work—not willing to do work for which he is fitted by experience, education or training, or places unreasonable restrictions on hours, wages, shift or skill he will accept, with the result that he is not likely to find the job he wants. Many states also require him to be actually searching for a job.

3. Quit work—left his job voluntarily without good cause. "Good cause" is some sound reason which would impel an ordinarily prudent person to quit, such as an unreasonable increase of hours without a pay increase, a substantial reduction in wages, requirement of excessive unpaid overtime, a transfer to work which injures the person's health, an unreasonably heavy work quota, unjustified reprimands or abuse from superior, etc.

4. Discharged for misconduct—discharged because of conduct detrimental to his employer's interests—for example, refusal to obey orders, absence from work, tardiness, violation of employer's rules, intoxication at work, etc.

5. Refused job offer of suitable work without good cause—refused a job which is reasonably fitted to his training, experience, or skills, pays the prevailing wages for similar work, is not detrimental to his health or safety, has working conditions which are not substantially less favorable than those prevailing in similar work in the locality, and is within a reasonable distance from his home. If the job offer is suitable, the person is expected to accept it unless he has good cause for refusing, such as reasonably good prospects of employment elsewhere, unreasonable conditions required by employer, etc.

6. Involved in labor dispute. Even if the worker is not striking, he may be disqualified if he is a member of the union involved; or his wages, hours or working conditions will be affected by the outcome of the strike; or he serves on or refuses to cross picket lines; or engages in a sympathy strike. In almost all states benefits cannot be paid as long as the dispute persists. Only states where strikers can receive benefits are: New York—after 7 weeks; Rhode Island—after 8 weeks.

Some state laws also disqualify workers who leave because of marriage, marital duties, pregnancy, to attend school, or who

TABLE NO. 2

Old Age and Survivors' Insurance: Summary of Operations

(in millions of dollars)

Year	Wage taxes collected	Interest received	Trust fund at end of year	Benefits paid*
1937.....	$ 493	$ 2.3	$ 766	$ 1.3
1938.....	474	15.4	1,132	10.5
1939.....	568	27.0	1,724	13.9
1940.....	637	42.9	2,031	40.6
1941.....	789	56.2	2,762	93.9
1942.....	1,012	72.3	3,688	137.0
1943.....	1,239	88.3	4,820	172.9
1944.....	1,316	106.7	6,005	218.0
1945.....	1,285	134.3	7,121	273.9
1946.....	1,295	151.6	8,150	378.1
1947.....	1,557	164.2	9,360	466.2
1948.....	1,685	281.2	10,722	556.2
1949.....	1,666	145.7	11,816	667.0
1950.....	2,667	257.0	13,721	961.1

*Only lump-sum payments were made until 1940.

TABLE NO. 3: State Unemployment Compensation Maximums

(corrected to October 20, 1951)

State	Weekly benefit	Duration (in weeks)	State	Weekly benefit	Duration (in weeks)
Alabama	$22	20	Montana	$20	18
Alaska	30	25*	Nebraska	24	20
Arizona	20	12*	Nevada	25	26*
Arkansas	22	16	New Hampshire	28	26
California	25	26	New Jersey	26	26
Colorado	22.75	20	New Mexico	25	24
Connecticut	24	26*	New York	30†	26
Delaware	25	26	North Carolina	30	26
D. C.	20	20*	North Dakota	25	20*
Florida	20	16	Ohio	28†	26*
Georgia	20	20	Oklahoma	22	22
Hawaii	25	20	Oregon	25	26
Idaho	25	26	Pennsylvania	30	26
Illinois	25	26	Rhode Island	25	26
Indiana	27	20	South Carolina	20	18
Iowa	26	20	South Dakota	22	20
Kansas	28	20	Tennessee	22	22
Kentucky	20	22	Texas	20	24
Louisiana	25	20	Utah	27.50	26
Maine	25	20	Vermont	25	20
Maryland	25	26*	Virginia	20	16
Massachusetts	25	23*	Washington	30	26
Michigan	27	20*	West Virginia	25	23
Minnesota	25	25	Wisconsin	30	26½
Mississippi	20	16	Wyoming	25	20*
Missouri	25	24			

* This amount will be increased for unemployed persons with dependents. † Effective Jan. 1, 1952.

receive dismissal pay, vacation pay, workmen's compensation payments, or veterans' readjustment allowances.

A worker seeking unemployment benefits must file a claim at the local office of the state unemployment bureau and register for work with the employment service. At that time, a benefit year (usually the year running from the date of his claim) and a base period (usually the year ending from 3 to 6 months before the filing of his claim) are established for him. His benefit amount will be a percentage of the wages earned in his base period, but no more than the maximum amount allowed. He is entitled to draw benefits for the set number of weeks during the rest of that benefit year. When he has exhausted these benefits he will not be eligible again until he can establish a new benefit year for which he has the necessary base period wages.

An employee moving out of the state does not lose benefit rights earned under that state law. He merely files a claim for benefits at the local office in the state where he is now located and this office will act as agent for the other state in paying him benefits.

Tax

An employer is generally liable for a maximum total tax of 3% of his pay roll —0.3% to the federal government and 2.7%, or less, to the state. Although the federal government itself technically levies a pay-roll tax of 3%, in practice this usually amounts to only 0.3% because the employer is allowed a credit of as much as 2.7% for taxes paid to the states. From this federal tax, funds are appropriated each year to the states to cover administrative costs. Taxes collected by the states are used solely for benefit payments.

Under the federal law, which is merely a taxing statute, the Treasury Department collects the tax, which is paid annually. The state laws, under which benefits are paid, are administered by the various state unemployment insurance agencies.

Only two states require contributions from employees in addition to those from employers: Ala.—the rate varies from 0.1% to 1.0% depending on the rate of the employer; N. J.—¼%.

Merit Rating

All states collect unemployment taxes under "merit rating" systems. These systems allow tax rates lower than the usual standard rate of 2.7% to those employers who have some success in stablizing employment, provided they have paid the tax for 3 or 4 years. In most states low rates go to employers who have fewest ex-employees drawing unemployment benefits; in others, those employers benefit who have little or no decrease in pay roll.

The average tax rate in merit rating states in 1950 was 1.5%.

Coverage

Employers are liable for the federal tax

TABLE NO. 4

Total Unemployment Compensation Benefits Under State Laws

Source: Social Security Administration.

Year	Total benefits (in thousands)	Average number of beneficiaries per week
1940	$ 518,700.4	982,392
1941	344,320.7	621,065
1942	344,084.1	541,495
1943	79,643.1	115,454
1944	62,384.6	79,306
1945	445,865.8	466 550
1946	1,095,475.2	1,150,217
1947	775,146.0	852,392
1948	789,925.0	826,481
1949	1,737,279.0	1,889,000
1950	1,373,426.0	1,323,500

if they have eight or more employees on some day in each of 20 weeks in a year.

State requirements for liability vary, ranging from eight employees in the state down to a single employee. An employer who has employees in several states may be subject to as many state laws.

Liability for both federal and state taxes is limited to the first $3,000 of a worker's pay in a year.

Certain employees are exempt from tax under federal and most state laws and are not counted in determining whether an employer is subject to tax. These are self-employed, agricultural workers, domestic workers, members of a proprietor's immediate family, railroad workers, government employees, employees of nonprofit educational, charitable or religious organizations, insurance agents, newsboys under 18, student nurses and interns, and casual labor not in the course of an employer's business. Although maritime workers had previously been exempt under the federal law and in some states, the federal law was amended to include them as of July 1, 1946, and coverage is being similarly extended in many states.

Public Assistance

Under the Social Security Act, federal grants are made to the states for public assistance to needy persons, provided the state plan for distribution of the aid has been approved by the federal government. All states and territories co-operate in old-age assistance plans: all but Alaska co-operate in plans for the needy blind; all but Nevada share in plans for needy children; all states and Puerto Rico have approved plans for maternal and child-health services, services for crippled children, and child-welfare services. Beginning January, 1947, grants for maternal and child-health services may be made to the Virgin Islands. The 1950 amendments authorized plans for the permanently disabled in need, and for direct medical care to those receiving assistance payments.

The federal contribution to the States for assistance to the needy aged and blind now are: $15 of the first $20 and 50% of any amount between $20 and $50. (The blind are allowed to earn up to $50 a month and still draw their full assistance payment.) Federal contribution for a de-

TABLE NO. 5: Public Assistance Payments

(in thousands)

Source: Social Security Administration.

Year	Total	Special types of assistance payments				
		Old-age assistance	Aid to dependent children	Aid to the blind	Aid to permanently and totally disabled	General assistance
1933	$1,223,779	$26,071	$40,504	$5,339	....	$758,752
1934	2,380,865	32,244	40,686	7,073	....	1,200,360
1935	2,532,467	64,966	41,727	7,970	....	1,433,180
1936	3,119,013	155,241	49,462	12,813	....	439,004
1937	2,653,918	310,441	71,253	16,171	....	406,881
1938	3,236,600	392,386	97,447	19,154	....	476,201
1939	3,185,447	430,666	114,954	20,437	....	481,723
1940	2,723,408	472,791	132,925	22,703	....	394,398
1941	2,227,527	540,446	153,028	22,785	....	273,007
1942	1,546,241	601,400	158,032	24,495	....	180,471
1943	930,234	653,171	140,942	25,143	....	110,978
1944	942,457	693,338	135,015	25,342	....	88,762
1945	989,686	726,550	149,667	26,557	....	86,912
1946	1,182,587	822,061	208,857	30,738	....	120,920
1947	1,480,774	986,470	294,038	36,198	....	164,068
1948	1,730,505	1,128,190	362,795	41,288	....	198,232
1949	2,174,989	1,372,913	472,371	48,448	....	281,257
1950	2,456,524*	1,485,483	556,420	53,405	8,178	353,039

* Includes vendor payments—that is, payments to others on behalf of these groups for medical and remedial care.

pendent child and to the relative with whom the child is living is $9 of the first $12, plus one-half of the remainder up to $27 for the relative and first dependent child in a family. Only those children are eligible who are under 16 (or under 18 and still at school) and who have been deprived of parental support or care and are living with a member of the family.

Social Security for Railroad Workers

Social security for most workers in the railroad transportation industry is provided under a national system apart from that established by the Social Security Act. The Railroad Retirement Act was first passed in 1934, but was held unconstitutional by the Supreme Court. The present Act was passed in 1935 and was substantially amended in 1937 and again in 1946. It is administered by the Railroad Retirement Board.

Taxes supporting the system are collected under the Carriers Taxing Act by the Bureau of Internal Revenue. Taxes are levied on the first $300 of monthly compensation, on both employers and employees at these rates: 1937–39: 2¾%; 1940–42: 3%; 1943–45: 3¼%; 1946: 3½%; 1947–48: 5¾%; 1949–51: 6%; 1952 on: 6¼%.

Benefits provided are: retirement benefits at 65 or over, and, under certain circumstances, 60; survivors' benefits; disability benefits.

Under the Railroad Insurance Act, also administered by the Railroad Retirement Board, railroad workers receive unemployment insurance, and since July 1, 1947, sickness compensation and maternity benefits. Costs are paid by employers at a rate of ½% of pay roll up to $300 a month per worker. Rates may increase in ½% gradations to a maximum of 3% according to a scale of rates set by the size of the benefit fund. Taxes are collected by the Board.

Federal Civil Service

The civil-service retirement system, first established in 1920, now provides a retirement system for almost all federal employees not under another plan. It provides for a retirement benefit at 70, or at 62 or 60 or 55, depending on the number of years' service; a disability retirement benefit; a deferred annuity for separated employees with 5 years' or more service when they reach the age of 55 or 62; refunds if service is less than 5 years; death benefit to a wife or dependent child in the amount of the worker's credit in the fund.

In order to finance increased benefit amounts, employees' contributions were raised from 5% to 6%, starting July 1, 1948. The Government's share in the cost of the program also rose from 5% to 6½%.

Health Insurance

For the most part health insurance is maintained on a voluntary basis by group or individual insurance purchased from private insurance companies or from nonprofit organizations. There are, however, these statutory programs:

1. Workmen's compensation laws in every state require employers to insure certain employees for disability incurred in the course of employment.

2. Sickness compensation laws in California, New Jersey, New York and Rhode Island provide for the payment of a cash benefit to partially replace wages lost through non-occupational illness or injury.

3. Almost 5 million civilian employees are paid disability benefits under special public retirement systems.

4. Cash sickness and maternity benefits are paid to railroad workers under the railroad insurance system.

Voluntary insurance is popular in fields of hospitalization costs, accident insurance, medical and surgical care, and pay for time lost from work through sickness.

The largest of the nonprofit plans is the Blue Cross, whose 90 hospital-service plans have over 40,000,000 subscribers throughout the country.

Individual and Corporate State Income Taxes

Individual (by % of income)			Corporate (by % of income)
ALABAMA			
First	$1,000	1½	3
Next	2,000	3	
"	2,000	4½	
Over	5,000	5	
ARIZONA			
First	$2,000	1	
Next	1,000	1¼	
"	1,000	1½	
"	1,000	2	
"	1,000	2½	
"	1,000	3	
"	1,000	3½	
"	1,000	4	
Over	9,000	4½	

Individual (by % of income)			Corporate (by % of income)
First	$1,000	1	
Next	2,000	2	
"	2,000	3	
"	2,000	4	
Over	5,000	5	

Individual (by % of income)			Corporate (by % of income)
ARKANSAS			
First	$3,000	1	Same as for individuals
Next	3,000	2	
"	5,000	3	
Next	14,000	4	
Over	25,000	5	
CALIFORNIA			
First	$5,000	1	4
Next	5,000	2	
"	5,000	3	
"	5,000	4	
"	5,000	5	
Over	25,000	6	
COLORADO			
First	$1,000	1	5

Individual (by % of income)			Corporate (by % of income)
Next	1,000	1½	
"	1,000	2	
"	1,000	2½	
"	1,000	3	
"	1,000	4	
"	1,000	5	
"	1,000	6	
"	1,000	7	
"	1,000	8	
"	1,000	9	
Over	11,000	10	

(For 1951, the tax reduced by 20%)

CONNECTICUT

None — 3% (or an alternative tax based on capital, or $15, whichever greater)

DELAWARE

First	$3,000	1	None
Next	$7,000	2	
Over	$10,000	3	

DISTRICT OF COLUMBIA

First	$5,000	1½	5
Next	5,000	2	
"	5,000	2½	
Over	15,000	3	

GEORGIA

First	$1,000	1	5½ (or an alternative tax based on income plus compensation, whichever is greater)
Next	2,000	2	
"	2,000	3	
"	2,000	4	
"	3,000	5	
"	10,000	6	
Over	20,000	7	

IDAHO

First	$1,000	1½	Same as for individuals
Next	1,000	3	
"	1,000	4	
"	1,000	5	
"	1,000	6	
Over	5,000	8	

INDIANA

Generally 1¼% with some lower rates (down to ½ of 1%) applicable to gross income from certain sources. — Same

IOWA

First	$1,000	1	2
Next	1,000	2	
Next	1,000	3	
"	1,000	4	
Over	4,000	5	

(25% reduction on the tax for 1951)

KANSAS

First	$2,000	1	2
Next	1,000	2	
"	2,000	2½	
"	2,000	3	
Over	7,000	4	

Individual (by % of income)			Corporate (by % of income)
KENTUCKY			
First	$3,000	2	4½
Next	1,000	3	
"	1,000	4	
"	3,000	5	
Over	8,000	6	
LOUISIANA			
First	$10,000	2	4
Next	40,000	4	
Over	50,000	6	

MARYLAND

2% on first $500 of investment income and 5% on balance; 2% on other taxable net income. — 4

MASSACHUSETTS

1½% to 6% depending on nature of income. Total tax is increased by temporary surtax of 23% of normal tax. — 5½% of net income plus .5% of corporate "excess." Total tax is increased by temporary surtax of 23% of normal tax.

MINNESOTA

First	$1,000	1	6
Next	1,000	2	
"	1,000	3	
"	1,000	4	
"	1,000	5	
"	2,000	6	
"	2,000	7	
"	3,500	8	
"	7,500	9	
Over	20,000	10	

(Increased by 5% of tax. Additional annual tax of $5 imposed on each person or corporation required to file return.)

MISSISSIPPI

First	$4,000	1	Same as for individuals
Next	3,000	2	
"	3,000	3	
"	5,000	4	
"	10,000	5	
Over	25,000	6	

MISSOURI

First	$1,000	1	2
Next	1,000	1½	
"	1,000	2	
"	2,000	2½	
"	2,000	3	
"	2,000	3½	
Over	9,000	4	

(Special credit ranging from $5 to $135 allowed against tax, depending on bracket)

MONTANA

First	$2,000	1	3
Next	2,000	2	
"	2,000	3	
Over	6,000	4	

NEW HAMPSHIRE

Individual (by % of income)	Corporate (by % of income)
Tax on income from intangible property at average rate of taxation levied upon other property.	None

NEW MEXICO

		Individual (by % of income)	Corporate (by % of income)
First	$10,000	1	2
Next	10,000	2	
"	80,000	3	
Over	100,000	4	

NEW YORK

		Individual (by % of income)	Corporate (by % of income)
First	$1,000	2	5½% or an alternative tax based [1] on income plus salary, or [2] on capital, or $25, whichever is greater; plus a tax on allocated subsidiary capital.
Next	2,000	3	
"	2,000	4	
"	2,000	5	
"	2,000	6	
Over	9,000	7	

(Capital gains taxed at one-half preceding rates)
Tax on unincorporated business 4%.

Note: For the past seven years legislative action has cut the actual tax load without changing the basic rates. For 1950, individual tax was reduced by 10% while unincorporated business tax rate was 3%. Any reduction for 1951 would require further legislative action.

NORTH CAROLINA

		Individual (by % of income)	Corporate (by % of income)
First	$2,000	3	6
Next	2,000	4	
"	2,000	5	
"	4,000	6	
Over	10,000	7	

NORTH DAKOTA

First	$2,000	1	First	$3,000	3
Next	2,000	2	Next	5,000	4
"	1,000	3	"	7,000	5
"	1,000	5	Over	15,000	6
"	2,000	7½			
"	2,000	10			
"	5,000	12½			
Over	15,000	15			

OKLAHOMA

		Individual (by % of income)	Corporate (by % of income)
First	$1,500	1	4
Next	1,500	2	
"	1,500	3	
"	1,500	4	
"	1,500	5	
Over	7,500	6	

OREGON

		Individual (by % of income)	Corporate (by % of income)
First	$ 500	2	8
Next	500	3	
"	1,000	4	
"	1,000	5	
"	1,000	6	
"	4,000	7	
Over	8,000	8	

PENNSYLVANIA

Individual (by % of income)	Corporate (by % of income)
None	5

RHODE ISLAND

Individual (by % of income)	Corporate (by % of income)
None	5% (or alternative tax based on corporate "excess," whichever is greater)

SOUTH CAROLINA

		Individual (by % of income)	Corporate (by % of income)
First	$2,000	2	4½% (or an alternative tax based on income plus salary, whichever is greater)
Next	2,000	3	
"	2,000	4	
Over	6,000	5	

TENNESSEE

Individual (by % of income)	Corporate (by % of income)
6% on dividends and interest. 4% on dividends from corporations with 75% of their property taxable in Tennessee.	3.75

UTAH

		Individual (by % of income)	Corporate (by % of income)
First	$1,000	1	3% (or alternative tax based on tangible property in Utah, or $10, whichever greater)
Next	1,000	2	
"	1,000	3	
"	1,000	4	
Over	4,000	5	

VERMONT

		Individual (by % of income)	Corporate (by % of income)
First	$1,000	1½	4
Next	2,000	3	
"	2,000	4½	
Over	5,000	5½	

(Increased by 15% of tax for 1951 and 1952)

VIRGINIA

		Individual (by % of income)	Corporate (by % of income)
First	$3,000	2	5
Next	2,000	3	
Over	5,000	5	

WISCONSIN

First	$1,000	1	First	$1,000	2
Next	1,000	1¼	Next	1,000	2½
"	1,000	1½	"	1,000	3
"	1,000	2	"	1,000	3½
"	1,000	2½	"	1,000	4
"	1,000	3	"	1,000	5
"	1,000	3½	Over	6,000	6
"	1,000	4			
"	1,000	4½			
"	1,000	5			
"	1,000	5½			
"	1,000	6			
Over	12,000	7			

Surtax computed by deducting $37.50 from normal tax and dividing remainder by 6.

Surtax computed by deducting $75 from normal tax and dividing by 6.

★ WHO'S WHO ★

LEADERS IN THE ARTS, PUBLIC AFFAIRS, AND SCIENCES

LEADING ASSOCIATIONS AND SOCIETIES

Prepared by

A. N. MARQUIS CO., *Publishers of* WHO'S WHO IN AMERICA

Locations and dates are those of birth. A name in parentheses is the original name or form of the name of the individual.

The vital statistics offered in this section have been gathered from various sources, including the subjects thereof, but neither *Who's Who in America* nor the *Information Please Almanac* can guarantee the accuracy of each individual item. We have learned to accept the date and place of birth that any lady or gentleman claims for herself or himself and not argue about it. Where we have not been able to learn the date and place of birth, we have not attempted to invent the items.

JOHN KIERAN, *Editor*

Art

ALBRIGHT, Ivan Le Lorraine (painter); Chicago, Ill., Feb. 20, 1897.

ALBRIGHT, Malvin (painter, sculptor); Chicago, Ill., Feb. 20, 1897.

ARCHIPENKO, Alexander (sculptor); Kiev, Rus., May 30, 1887.

BAZIOTES, William (painter); Pittsburgh, Pa., June 11, 1912.

BENTON, Thomas Hart (painter); Neosho, Mo., Apr. 15, 1889.

BLUME, Peter (painter); Russia, Oct. 27, 1906.

BRANCUSI, Constantin (sculptor); Rumania, 1876.

BRANGWYN, Sir Frank (painter); Bruges, Belg., May 13, 1867.

BRAQUE, Georges (painter); Argenteuil, Fr., May 13, 1882.

BROOK, Alexander (painter); Brooklyn, N. Y., July 14, 1898.

BURCHFIELD, Charles E. (watercolorist); Ashtabula, Ohio, Apr. 9, 1893.

CADMUS, Paul (painter, etcher); New York City, Dec. 17, 1904.

CALDER, Alexander ("mobile" sculptor); Lawnton, Pa., July 22, 1898.

CARROLL, John (painter); Wichita, Kans., Aug. 14, 1892.

CHAGALL, Marc (painter); Vitebsk, Rus., July 7, 1887.

CHIRICO, Giorgio de (painter); Volo, Gr., July 10, 1888.

CORBINO, Jon (painter); Vittoria, It., Apr. 3, 1905.

COVARRUBIAS, Miguel (illustrator); Mexico City, Mex., 1902.

DALI, Salvador (painter); Figueras, Sp., May 11, 1904.

DAVIDSON, Jo (sculptor); New York City, Mar. 30, 1883.

DAVIS, Stuart (painter); Philadelphia, Pa., Dec. 7, 1894.

DE KOONING, William (painter); Rotterdam, Neth., 1904.

DERAIN, André (painter); Chatou, Fr., June 10, 1880.

DUFY, RAOUL (painter); Le Havre, Fr., June 3, 1877.

EPSTEIN, Jacob (sculptor); New York City, Nov. 10, 1880.

FEININGER, Lyonel (painter); New York City, July 17, 1871.

GROPIUS, Walter (architect); Berlin, Ger., May 18, 1883.

GROPPER, William (painter); New York City, Dec. 3, 1897.

GROSZ, George (painter); Berlin, Ger., July 26, 1893.

HASELTINE, Herbert (sculptor); Rome, It., Apr. 10, 1877.

HOPPER, Edward (painter); Nyack, N. Y., July 22, 1882.

JONES, Robert Edmond (stage designer); Milton, N. H., Dec. 12, 1887.

KANTOR, Morris (painter); Russia, Apr. 15, 1896.

KARFIOL, Bernard (painter); Budapest, Hung., May 6, 1886.

KENT, Rockwell (painter); Tarrytown Heights, N. Y., June 21, 1882.

KOKOSCHKA, Oskar (painter); Pöchlarn, Aus., Mar. 1, 1886.

KROLL, Leon (painter); New York City, Dec. 6, 1884.

KUNIYOSHI, Yasuo (painter); Okayama, Jap., Sept. 1, 1893.

LATHROP, Gertrude Katherine (sculptor); Albany, N. Y., Dec. 24, 1896.

LE CORBUSIER (Charles-Édouard Jeanneret) (architect); La Chaux De Fonds, Switz., Oct. 6, 1887.

LÉGER, Fernand (painter); near Liseaux, Fr., Feb., 1881.

LIPCHITZ, Jacques (sculptor); Druskieniki, Lith., Aug. 22, 1891.

MARIN, John (watercolorist); Rutherford, N. J., Dec. 23, 1872.

MARSH, Reginald (painter, etcher); Paris, Fr., Mar. 14, 1898.

MATISSE, Henri (painter); Cateau, Fr., Dec. 31, 1869.

MATTA (Matta Echaurren) (painter); Chile, 1912.

MATTSON, Henry (painter); Gothenburg, Swed., Aug. 7, 1887.

MESTROVIČ, Ivan (sculptor); Vrpolje, Yugos., Aug. 15, 1883.

MIELZINER, Jo (stage designer); Paris, Fr., Mar. 19, 1901.

MILLES, Carl (sculptor); Uppsala, Swed., June 23, 1875.

MIRÓ, Joan (painter); Barcelona, Sp., Apr. 21, 1893.

MOORE, Bruce (sculptor); Bern, Kans., Aug. 5, 1905.

MOORE, Henry (sculptor); Castleford, Eng., July 30, 1898.

MOSES, Grandma (Anna Mary) (painter); Greenwich, N. Y., Sept. 7, 1860.

MOTHERWELL, Robert (painter); Aberdeen, Wash., Jan. 24, 1915.

NAGLER, Fred (painter); Springfield, Mass., Feb. 27, 1891.

NOGUCHI, Isamu (sculptor); Los Angeles, Calif., Nov. 7, 1904.

O'KEEFFE, Georgia (painter); Sun Prairie, Wis., Nov. 15, 1887.

PEIRCE, Waldo (painter); Bangor, Maine, Dec. 17, 1884.

PICASSO, Pablo (painter, sculptor); Málaga, Sp., Oct. 25, 1881.

POLLOCK, Jackson (painter); Cody, Wyo., Feb. 7, 1912.

PORTINARI, Candido (painter); Brazil, 1903.

QUINTANILLA, Luis (painter); Santander, Sp., June 13, 1895.

RATTNER, Abraham (painter); Poughkeepsie, N. Y., July 8, 1895.

RIVERA, Diego (painter); Guanajuato, Mex., Dec. 8, 1886.

ROBINSON, Boardman (painter); Somerset, Nova Scotia, Sept. 6, 1876.

ROUAULT, Georges (painter, lithographer); Paris, Fr., May 27, 1871.

SAMPLE, Paul (painter); Louisville, Ky., Sept. 14, 1896.

SEGONZAC, André Dunoyer de (painter); France, 1885.

SEPESHY, Zoltan (painter); Kassa, Hung., Nov. 24, 1898.

SHAHN, Ben (painter); Kovno, Russ., 1898.

SHEELER, Charles (painter); Philadelphia, Pa., July 16, 1883.

SIMONSON, Lee (stage designer); New York City, June 26, 1888.

SIQUEIROS, David (painter); Mexico, 1894.

SPEICHER, Eugene (painter); Buffalo, N. Y., Apr. 5, 1883.

STERNE, Maurice (painter, sculptor); Libau, Rus., July 13, 1878.

TAMAYO, Rufino (painter); Oaxaca, Mex., 1899.

TANGUY, Yves (painter); France, 1900.

TCHELITCHEW, Pavel (painter); near Moscow, Rus., Sept. 21, 1898.

UTRILLO, Maurice (painter); Paris, Fr., Dec. 25, 1883.

VLAMINCK, Maurice de (painter); Paris, Fr., Apr. 4, 1876.

WALKER, Ralph Thomas (architect); Waterbury, Conn., Nov. 28, 1889.

WEBER, Max (painter); Bialystok, Rus., Apr. 18, 1881.

WRIGHT, Frank Lloyd (architect); Richland Center, Wis., June 8, 1869.

ZORACH, William (sculptor); Eurburg, Lith., Feb., 28, 1887.

Concert Music

ALBANESE, Licia (soprano); Bari, It., July 22, 1913.

ALDA, Frances (soprano); Christchurch, N. Z., May 31, 1885.

ANDERSON, Marian (contralto); Philadelphia, Pa., Feb. 17, 1902.

ANTHEIL, George (composer); Trenton, N. J., July 8, 1890.

ARRAU, Claudio (pianist); Chillan, Chile, Feb. 6, 1904.

BACCALONI, Salvatore (basso); Rome, It., Apr. 14, 1900.

BAMPTON, Rose (contralto); Cleveland, Ohio, Nov. 28, 1909.

BARBER, Samuel (composer); West Chester, Pa., Mar. 9, 1910.

BARBIROLLI, Sir John (conductor); London, Eng., Dec. 2, 1899.

BARLOW, Howard (conductor); Plain City, Ohio, May 1, 1892.

BAX, Sir Arnold (composer); London, Eng., Nov. 8, 1883.

BEECHAM, Sir Thomas (conductor); St. Helens, Eng., Apr. 29, 1879.

BENNETT, Robert Russell (composer); Kansas City, Mo., June 15, 1894.

BERNSTEIN, Leonard (composer, conductor); Lawrence, Mass., Aug. 25, 1918.

BING, Rudolf (gen. mgr., Met. Opera Co.); Vienna, Aus., Jan. 9, 1902.

BJOERLING, Jussi (tenor); Stora Tuna Dalarna, Swed., Feb. 2, 1911.

BLITZSTEIN, Marc (composer); Philadelphia, Pa., Mar. 2, 1905.

BLACK, Frank (conductor); Philadelphia, Pa., Nov. 28, 1894.

BLOCH, Ernest (composer); Geneva, Switz., July 24, 1880.

BONELLI, Richard (Richard Bunn) (baritone); Port Byron, N. Y.

BORI, Lucrezia (Lucrecia Borja González de Riancho) (soprano); Valencia, Sp., Dec. 24, 1887.

BOULT, Sir Adrian (conductor); Chester, Eng., Apr. 8, 1889.

BRAILOWSKY, Alexander (pianist); Kiev, Rus., Feb. 16, 1896.

BRANZELL, Karin (contralto); Stockholm, Swed., Sept. 24, 1891.

BRICE, Carol (contralto), Indianapolis, Ind., Apr. 16, 1918.

BRITTEN, Benjamin (composer); Lowestoft, Eng., Nov. 22, 1913.

BROWNLEE, John (baritone); Geelong, Austr., Jan. 7, 1901.

BUSCH, Adolf (composer, violinist); Siegen, Westphalia, Aug. 8, 1891.

CASADESUS, Robert (pianist); Paris, Fr., Apr. 7, 1899.

CASALS, Pablo (cellist); Vendrell, Sp., Dec. 29, 1876.

CASTAGNA, Bruna (contralto); Milan, It., Oct. 15, 1908.

CASTELNUOVO-TEDESCO, Mario (composer); Florence, It., Apr. 3, 1895.

CHARPENTIER, Gustave (composer); Dieuze, Fr., June 25, 1860.

CHAVEZ, Carlos (composer); near Mexico City, Mex., June 13, 1899.

COATES, Albert (conductor); St. Petersburg, Rus., Apr. 23, 1882.

COATES, Eric (composer); Hucknall, Eng., Aug. 27, 1886.

COPLAND, Aaron (composer): Brooklyn, N. Y., Nov., 14, 1900.

CORTOT, Alfred (pianist); Nyon, Fr., Sept. 26, 1877.

CROOKS, Richard (tenor); Trenton, N. J., June 26, 1900.

CURZON, Clifford (pianist); London, Eng., May 18, 1907.

DEFAUW, Désiré (conductor); Ghent, Belg., Sept. 5, 1885.

DELLO JOIO, Norman (composer); New York City, Jan. 24, 1913.

DIAMOND, David (composer); Rochester, N. Y., July 9, 1915.

DOHNÁNYI, Ernst von (composer, pianist); Pressburg, Slovakia, July 27, 1877.

DORATI, Antal (conductor); Budapest, Hung., Apr. 9, 1906.

EAMES, Emma (soprano); Shanghai, China, Aug. 13, 1865.

ELMAN, Mischa (violinist); Stalnoye, Rus., Jan. 20, 1891.

ENESCO, Georges (composer, violinist): Dorohoi, Rum., Aug. 19, 1881.

FARRAR, Geraldine (soprano); Melrose, Mass., Feb. 28, 1882.

FIEDLER, Arthur (conductor); Boston, Mass., Dec. 17, 1894.

FIRKUSNY, Rudolf (pianist); Napajedda, Czech., Feb. 11, 1912.

FISCHER, Edwin (pianist); Basel, Switz., Oct. 6, 1886.

FLAGSTAD, Kirsten (soprano); Hamar, Nor., July 12, 1895.

FOSS, Lukas (composer); Berlin, Ger., Aug. 15, 1922.

FRANÇAIX, Jean (composer); Le Mans, Fr., May 23, 1912.

FRANCESCATTI, Zino (violinist); Marseille, Fr., Aug. 9, 1905.

FURTWÄNGLER, Wilhelm (conductor); Berlin, Ger., Jan. 25, 1886.

GALLI-CURCI, Amelita (soprano); Milan, It., Nov. 18, 1889.

GANZ, Rudolph (conductor, pianist); Zürich, Switz., Feb. 24, 1877.

GARBOUSOVA, Raya (cellist); Tiflis, Rus., Sept. 25, 1909.

GARDEN, Mary (soprano); Aberdeen, Scot., Feb. 20, 1877.

GIANNINI, Dusolina (soprano); Philadelphia, Pa., Dec. 19, 1904.

GIESEKING, Walter (pianist); Lyon, Fr., Nov. 5, 1895.

GIGLI, Beniamino (tenor); Recanati, It., Mar. 20, 1890.

GLIÈRE, Reinhold (composer); Kiev, Rus., Jan. 11, 1875.

GOLDMAN, Edwin F. (composer, conductor); Louisville, Ky., Jan. 1, 1878.

GOLSCHMANN, Vladimir (conductor); Paris, Fr., Dec. 16, 1893.

GOOSSENS, Eugene (conductor); London, Eng., May 26, 1893.

GOOSSENS, Leon (oboist); London, Eng., 1896.

GORIN, Igor (baritone); Ukraine, Rus., Oct. 26, 1909.

GRAINGER, Percy (pianist); Melbourne, Austr., July 8, 1882.

GRETCHANINOV, Alexander (composer); Moscow, Rus., Oct. 25, 1864.

GROFÉ, Ferde (composer); New York City, Mar. 27, 1892.

GRUENBERG, Louis (composer); Litovsk, Russia, Aug. 3, 1884.

HANSON, Howard (composer, conductor); Wahoo, Nebr., Oct. 28, 1896.

HARRIS, Roy (composer); Lincoln Co., Okla., Feb. 12, 1898.

HARRISON, Guy Fraser (conductor); Guildford, Eng., Nov. 6, 1894.

HAYES, Roland (tenor); Curryville, Ga., June 3, 1887.

HEIFETZ, Jascha (violinist); Vilna, Rus., Feb. 2, 1901.

HENDL, Walter (conductor); West New York, N. J., Jan. 12, 1917.

HESS, Myra (pianist); London, Eng., Feb. 25, 1890.

HINDEMITH, Paul (composer); Hanau, Ger., Nov. 16, 1895.

HOFMANN, Josef (pianist); Cracow, Pol., Jan. 20, 1876.

HONEGGER, Arthur (composer); Le Havre, Fr., Mar. 10, 1892.

HOROWITZ, Vladimir (pianist); Kiev, Rus., Oct. 1, 1904.

IBERT, Jacques (composer); Paris, Fr., Aug. 15, 1890.

ISTOMEN, Eugene (pianist); New York City, Nov. 26, 1925.

ITURBI, José (pianist, conductor); Valencia, Sp., Nov. 28, 1895.

IVES, Charles (composer); Danbury, Conn., Oct. 20, 1874.

JAGEL, Frederick (tenor); Brooklyn, N. Y., June 10, 1897.

JANSSEN, Herbert (baritone); Cologne, Ger.

JANSSEN, Werner (conductor); New York City, June 1, 1900.

JEPSON, Helen (soprano); Titusville, Pa., Nov. 25, 1907.

JERITZA, Maria (soprano); Brünn, Aus., Oct. 6, 1887.

JOHNSON, Hall (choral director); Athens, Ga., Mar. 12, 1888.

KABALEVSKY, Dmitri (composer); St. Petersburg, Rus., Dec. 30, 1904.

KAPELL, William (pianist); New York City, Sept. 20, 1922.

KATIMS, Milton (violist); Brooklyn, N. Y., June 24, 1909.

KHACHATURIAN, Aram (composer); Tiflis, June 6, 1903.

KIEPURA, Jan (tenor); Sosnowiec, Pol., May 16, 1902.

KIPNIS, Alexander (basso); Ukraine, Feb. 1, 1896.

KIRKPATRICK, Ralph (harpsichordist); Leominster, Mass., June 10, 1911.

KIRSTEN, Dorothy (soprano); Montclair, N. J., July 6, 1919.

KLEIBER, Erich (conductor); Vienna, Aus., Aug. 5, 1890.

KODÁLY, Zoltán (composer); Kecskemét, Hung., Dec. 16, 1882.

KORJUS, Miliza (soprano); Warsaw, Pol., Aug. 18, 1909.

KORNGOLD, Erich (composer); Brünn, Aus., May 29, 1897.

KOSTELANETZ, Andre (conductor); St. Petersburg, Rus., Dec. 22, 1901.

KREISLER, Fritz (violinist); Vienna, Aus., Feb. 2, 1875.

KRÊNEK, Ernst (composer); Vienna, Aus., Aug. 23, 1900.

KRUEGER, Karl (conductor); Atchison, Kans., Jan. 19, 1894.

KUBELIK, Rafael (conductor); Bychory, Czech., June 29, 1914.

KULLMAN, Charles (tenor); New Haven, Conn., Jan. 13, 1903.

KURENKO, Maria (soprano); Moscow, Rus., 1899.

KURTZ, Efrem (conductor); St. Petersburg, Rus., Nov. 7, 1900.

LANDOWSKA, Wanda (harpsichordist); Warsaw, Pol., July 5, 1877.

LANGE, Hans (conductor); Constantinople, Turk., Feb. 17, 1884.

LANZA, Mario (Alfredo Arnold Cocozza) (tenor); Philadelphia, Pa., Jan. 31, 1921.

LAURI-VOLPI, Giacomo (tenor); Rome, It., Dec. 11, 1894.

LAWRENCE, Marjorie (soprano); Deans Marsh, Austr., Feb. 17, 1909.

LEHMANN, Lotte (soprano); Perleberg, Ger., July 2, 1885.

LEINSDORF, Erich (conductor); Vienna, Aus., Feb. 4, 1912.

LEV, Ray (pianist); Rostov on Don, Rus., May 8, 1912.

LEVANT, Oscar (pianist); Pittsburgh, Pa., Dec. 27, 1906.

LIST, Emanuel (basso); Vienna, Aus., Mar. 22, 1891.

LIST, Eugene (pianist); Calif., 1921.

McDONALD, Harl (composer); near Boulder, Colo., July 27, 1899.

MacMILLAN, Sir Ernest (conductor); Mimico, Can., Aug. 18, 1893.

MARTINELLI, Giovanni (tenor); Montagnana, It., Oct. 22, 1885.

MARTINU, Bohuslav (composer); Policka, Czech., Dec. 8, 1890.

MASON, Daniel Gregory (composer); Brookline, Mass., Nov. 20, 1873.

MATZENAUER, Margaret (contralto); Temesvar, Hung., June 1, 1881.

MAYNOR, Dorothy (soprano); Norfolk, Va., Sept. 3, 1910.

MEDTNER, Nicolas (composer); Moscow, Rus., Jan. 5, 1880.

MELCHIOR, Lauritz (tenor); Copenhagen, Den., Mar. 20, 1890.

MELTON, James (tenor); Moultrie, Ga., Jan. 2, 1904.

MENOTTI, Gian-Carlo (composer); Cadegliano, It., July 7, 1911.

MENUHIN, Yehudi (violinist); New York City, Apr. 22, 1916.

MERRILL, Robert (baritone); Brooklyn, N. Y., June 4, 1919.

MERRIMAN, Nan (mezzo-soprano); Pittsburgh, Pa., Apr. 28, 1920.

MILANOV, Zinka (soprano); Zagreb, Yugos., May 17, 1908.

MILHAUD, Darius (composer); Aix-en-Provence, Fr., Sept. 4, 1892.

MILSTEIN, Nathan (violinist); Odessa, Rus., Dec. 31, 1904.

MITROPOULOS, Dimitri (conductor); Athens, Gr., Feb. 18, 1896.

MOISEIVITCH, Benno (pianist); Odessa, Rus., Feb. 22, 1890.

MONTEMEZZI, Italo (composer); Vigasio, It., Aug. 4, 1875.

MONTEUX, Pierre (conductor); Paris, Fr., Apr. 4, 1875.

MORINI, Erica (violinist); Vienna, Aus., Jan. 5, 1910.

MOORE, Douglas Stuart (composer); Cutchogue, N. Y., Aug. 10, 1893.

MUENCH, Charles (conductor); Strasbourg, Ger., Sept., 1891.

MUNSEL, Patrice (soprano); Spokane, Wash., May 14, 1925.

NOVAËS, Guiomar (pianist); São João da Boa Vista, Braz., Feb. 28, 1895.

NOVOTNA, Jarmila (soprano); Prague, Czech., Sept. 23, 1911.

ORMANDY, Eugene (conductor); Budapest, Hung., Nov. 18, 1899.

PEERCE, Jan (Jacob Pincus Perelmuth) (tenor); New York City, 1904.

PELLETIER, Wilfred (conductor); Montreal, Can., June 30, 1896.

PERSINGER, Louis (violinist); Rochester, Ill., Feb. 11, 1887.

PESSL, Yella (harpsichordist); Vienna.

PETRI, Egon (pianist); Hanover, Ger., Mar. 23, 1881.

PHILIPP, Isidore (pianist); Budapest, Hung., Sept. 2, 1863.

PIATIGORSKY, Gregor (cellist); Ekaterinoslav, Rus., Apr. 17, 1903.

PINZA, Ezio (basso); Rome, It., May 18, 1892.

PISTON, Walter (composer); Rockland, Maine, Jan. 20, 1894.

PONS, Lily (soprano); Cannes, Fr., Apr. 13, 1904.

PONSELLE, Rosa (soprano); Meriden, Conn., Jan. 22, 1897.

POULENC, Francis (composer); Paris, Fr., Jan. 7, 1899.

POWERS, Marie (contralto); Mt. Carmel, Pa.

PRIMROSE, William (violist); Glasgow, Scot., Aug. 23, 1904.

PROKOFIEFF, Serge (composer); Sontsovka, Rus., Apr. 23, 1891.

RAISA, Rosa (soprano); Bialystok, Pol., May 30, 1893.

RALF, Torsten (tenor); Sweden, 1915.

REINER, Fritz (conductor); Budapest, Hung., Dec. 19, 1888.

RETHBERG, Elisabeth (soprano); Schwarzenberg, Ger., Dec. 22, 1894.

ROBESON, Paul (baritone); Princeton, N. J., Apr. 9, 1898.

RODZINSKI, Artur (conductor); Spalato, Dalmatia, Jan. 2, 1892.

RUBINSTEIN, Artur (pianist); Warsaw, Pol., Jan. 28, 1889.

SAIDENBERG, Daniel (conductor); Winnipeg, Can., Oct. 12, 1906.

SALMOND, Felix (cellist); London, Eng., Nov. 19, 1888.

SALZEDO, Carlos (harpist); Arachon, Fr., Apr. 6, 1885.

SÁNDOR, György (pianist); Budapest, Hung., Sept. 21, 1912.

SANROMÁ, Jesús María (pianist); Carolina, P. R., Nov., 7, 1902.

SARGENT, Sir Malcolm (conductor); Stamford, Eng., Apr. 29, 1895.

SAYÃO, Bidú (soprano); Rio de Janeiro, Braz., May 11, 1906.

SCHIÖTZ, Aksel (tenor); Roskilde, Den., Sept. 1, 1906.

SCHIPA, Tito (tenor); Lecce, It., Jan. 2, 1890.

SCHNEIDER, Alexander (violinist); Vilna, Pol., Dec. 21, 1908.

SCHORR, Friedrich (baritone); Nagyvárad, Hung., Sept. 2, 1888.

SCHUMAN, William (composer); New York City, Aug. 4, 1910.

SCHUMANN, Elisabeth (soprano); Merseburg, Ger., June 13, 1891.

SCOTT, Cyril (composer); Oxton, Eng., Sept. 27, 1879.

SEGOVIA, Andrés (guitarist); Linares, Sp., Feb. 18, 1894.

SEIDEL, Toscha (violinist); Odessa, Rus., Nov. 17, 1899.

SERKIN, Rudolf (pianist); Eger, Boh., Mar. 28, 1903.

SESSIONS, Roger (composer); Brooklyn, N. Y., Dec. 28, 1896.

SEVITZKY, Fabien (Fabien Koussevitzky) (conductor); Vyshni-Volochek, Rus., Sept. 30, 1893.

SHAW, Robert (choral dir.); Red Bluff, Calif., Apr. 30, 1916.

SHOSTAKOVICH, Dmitri (composer); St. Petersburg, Rus., Sept. 26, 1906.

SIBELIUS, Jean (composer); Tavastehus, Fin., Dec. 8, 1865.

SINGHER, Martial (baritone); Oloron-Ste.-Marie, Fr., Aug. 14, 1904.

SMALLENS, Alexander (conductor); St. Petersburg, Rus., Jan. 1, 1889.

SOWERBY, Leo (composer); Grand Rapids, Mich., May 1, 1895.

SPALDING, Albert (violinist); Chicago, Ill., Aug. 15, 1888.

STEBER, Eleanor (soprano); Wheeling, W. Va., July 17, 1916.

STEINBERG, William (conductor); Cologne, Ger., Aug. 1, 1899.

STERN, Isaac (violinist); Kreminiesy, Rus., July 21, 1920.

STEVENS, Risë (mezzo-soprano); New York City, June 11, 1913.

STEWART, Reginald (conductor); Edinburgh, Scot., Apr., 20, 1900.

STIEDRY, Fritz (conductor); Vienna, Aus., Oct. 11, 1383.

STIGNANI, Ebe (mezzo-soprano); Naples, It., July 10, 1907.

STILL, William Grant (composer); Woodville, Miss., May 11, 1895.

STOKOWSKI, Leopold (conductor); London, Eng., Apr. 18, 1882.

STRAUS, Oskar (composer); Vienna, Aus., Apr. 6, 1870.

STRAVINSKY, Igor (composer); Oranienbaum, Rus., June 17, 1882.

SVANHOLM, Set (tenor); Vasteras, Swed., Sept. 2, 1904.

SWARTHOUT, Gladys (mezzo-soprano); Deepwater, Mo., Dec. 25, 1904.

SZELL, George (conductor); Budapest, Hung., June 7, 1897.

SZIGETI, Joseph (violinist); Budapest, Hung., Sept. 5, 1892.

TAGLIAVINI, Ferruccio (tenor); Reggio Emilia, It., Aug. 14, 1913.

TAJO, Italo (basso); Pinerolo, It., Apr. 25, 1915.

TAYLOR, Deems (composer); New York City, Dec. 22, 1885.

TEMPLETON, Alec (pianist); Cardiff, Wales, July 4, 1910.

TEYTE, Maggie (soprano); Wolverhampton, Eng., Apr. 17, 1891.

THOMAS, John Charles (baritone); Meyersdale, Pa., Sept. 6, 1891.

THOMPSON, Randall (composer); New York City, Apr. 21, 1899.

THOMSON, Virgil (composer, critic); Kansas City, Mo., Nov. 25, 1896.

THORBORG, Kerstin (contralto); Venjan, Swed., May. 19, 1906.

TIBBETT, Lawrence (baritone); Bakersfield, Calif., Nov. 16, 1896.

TOCH, Ernst (composer); Vienna, Aus., Dec. 7, 1887.

TOSCANINI, Arturo (conductor); Palma, It., Mar. 25, 1867.

TOUREL, Jennie (mezzo-soprano); Montreal, Can., June 22, 1910.

TRAUBEL, Helen (soprano); St. Louis, Mo.

VARÈSE, Edgar (composer); Paris, Fr., Dec. 22, 1885.

VAUGHAN WILLIAMS, Ralph (composer); Down Ampney, Eng., Oct. 12, 1872.

VILLA-LOBOS, Heitor (composer); Rio de Janeiro, Braz., Mar. 5, 1884.

WALLENSTEIN, Alfred (conductor, cellist); Chicago, Ill., Oct. 7, 1898.

WALTER, Bruno (Bruno Walter Schlesinger) (conductor); Berlin, Ger., Sept. 15, 1876.

WALTON, William (composer); Oldham, Eng., Mar. 29, 1902.

WARREN, Leonard (baritone); New York City, Apr. 21, 1911.

WEINBERGER, Jaromír (composer); Prague, Czech., Jan. 8, 1896.

ZIMBALIST, Efrem (violinist); Rostov-on-Don, Rus., Apr. 9, 1889.

Entertainment

ABBOTT, Bud (William) (actor); Asbury Park, N. J., Oct. 2, 1898.

ABBOTT, George (director, playwright); Forestville, N. Y., June 25, 1889.

ABEL, Walter (actor); St. Paul, Minn., June 6, 1898.

ADAMS, Maude (Maude Kiskadden) (actress); Salt Lake City, Utah, Nov. 11, 1872.

ADLER, Larry (harmonica player); Baltimore, Md., Feb. 10, 1914.

ADLER, Luther (actor); New York City, May 4, 1903.

AHERNE, Brian (actor); Kings Norton, Eng., May 2, 1902.

ALBERT, Eddie (Eddie A. Heimberher) (actor); Rock Island, Ill., Apr. 22, 1908.

ALLEN, Fred (John F. Sullivan) (actor); Cambridge, Mass., May 31, 1894.

ALLEN, Gracie (comedian); San Francisco, Calif., July 26, 1906.

ALLYSON, June (actress); Westchester Co., N. Y.

AMECHE, Don (actor); Kenosha, Wis., May 31, 1908.

AMOS (Freeman F. Gosden) (actor); Richmond, Va., May 5, 1899.

AMSTERDAM, Morey (comedian); Chicago, Ill., Dec. 14, 1912.

ANDERSON, Eddie. *See* Rochester.

ANDERSON, Judith (actress); Adelaide, Austr., Feb. 10, 1898.

ANDREWS, Dana (actor); Collins, Miss., Jan. 1, 1912.

ANDREWS, Laverne (singer); Minneapolis, Minn., July 6, 1915.

ANDREWS, Maxene (singer); Minneapolis, Minn., Jan. 3, 1918.

ANDREWS, Patricia (singer); Minneapolis, Minn., Feb. 16, 1920.

ANDY (Charles J. Correll) (actor); Peoria, Ill., Feb. 2, 1890.

ARLEN, Harold (Hyman Arluck) (composer); Buffalo, N. Y., Feb. 15, 1905.

ARMSTRONG, Louis (trumpeter); New Orleans, La., July 4, 1900.

ARNOLD, Edward (actor); New York City, Feb. 18, 1890.

ARTHUR, Jean (Gladys Greene) (actress); New York City, Oct. 17, 1908.

ASTAIRE, Fred (Frederick Austerlitz) (dancer); Omaha, Nebr., May 10, 1899.

AUER, Mischa (actor); St. Petersburg, Rus., Nov. 17, 1905.

AUTRY, Gene (actor); Tioga, Tex., Sept. 29, 1907.

AYRES, Lew (actor); Minneapolis, Minn., Dec. 28, 1908.

BACALL, Lauren (actress); New York City, Sept. 16, 1924.

BAINTER, Fay (actress); Los Angeles, Calif., 1893.

BAKER, Kenny (actor, singer); Monrovia, Calif., Sept. 30, 1912.

BAKER, Phil (actor); Philadelphia, Pa., Aug. 24, 1898.

BALANCHINE, George (ballet director); St. Petersburg, Rus., Jan. 9, 1904.

BALL, Lucille (actress); Butte, Mont., Aug. 6, 1911.

BANKHEAD, Tallulah (actress); Huntsville, Ala., Jan. 31, 1903.

BANKS, Leslie (actor); Liverpool, Eng., June 9, 1890.

BARRAT, Robert (actor); New York City, July 10, 1891.

BARRYMORE, Diana (actress); New York City, Mar. 3, 1921.

BARRYMORE, Ethel (actress); Philadelphia, Pa., Aug. 15, 1879.

BARRYMORE, Lionel (actor); Philadelphia, Pa., Apr. 28, 1878.

BARTHELMESS, Richard (actor); New York City, May 9, 1897.

BARTHOLOMEW, Freddie (actor); London, Eng., Mar. 28, 1924.

BARTON, James (actor); Gloucester, N. J., Nov. 1, 1890.

BASIE, Count (William) (band leader); Red Bank, N. J., Aug. 21, 1906.

BASSERMAN, Albert (actor); Mannheim, Ger., Sept. 7, 1867.

BAXTER, Anne (actress); Michigan City, Ind., May 7, 1923.

BELLAMY, Ralph (actor); Chicago, Ill., June 17, 1905.

BENDIX, William (actor); New York City, Jan. 14, 1906.

BENNETT, Joan (actress); Palisades, N. J., Feb. 27, 1910.

BENNY, Jack (Benny Kubelsky) (actor); Waukegan, Ill., Feb. 14, 1894.

BERGEN, Edgar (actor, ventriloquist); Chicago, Ill., Feb. 16, 1903.

BERGMAN, Ingrid (actress); Stockholm, Swed., 1917.

BERGNER, Elisabeth (actress); Vienna, Aus., Aug. 22, 1900.

BERLE, Milton (Milton Berlinger) (actor); New York City, July 12, 1908.

BERLIN, Irving (Isidore Baline) (song writer); Temun, Russia, May 11, 1888.

BICKFORD, Charles (actor); Cambridge, Mass.

BLAIR, Janet (actress); Blair, Pa.

BLONDELL, Joan (actress); New York City, Aug. 30, 1909.

BOGART, Humphrey (actor); New York City, Dec. 25, 1900.

BOLGER, Raymond (actor); Dorchester, Mass., Jan. 10, 1906.

BORZAGE, Frank (director); Salt Lake City, Utah, Apr. 23, 1893.

BOYD, William (actor); Cambridge, Ohio, June 5, 1898.

BOYER, Charles (actor); Figeac, Fr., Aug. 28, 1899.

BOYER, Lucienne (singer); France.

BRACKEN, Eddie (actor); Astoria, N. Y., Feb. 7, 1920.

BRANDO, Marlon (actor); Omaha, Nebr., Apr. 3, 1924.

BRENNAN, Walter (actor); Lynn, Mass., July 25, 1894.

BRENT, Romney (Romulo Larralde) (actor); Satillo, Mex., Jan. 26, 1902.

BROWN, Joe E. (actor); Holgate, Ohio, July 28, 1892.

BRUCE, Carol (singer); Great Neck, N. Y., Nov. 15, 1919.

BRUCE, Nigel (actor); San Diego, Calif., Feb. 4, 1895.

BURKE, Billie (actress); Washington, D. C., Aug. 7, 1886.

BURNS, Bob (actor); Van Buren, Ark., Oct. 2, 1896.

BURNS, George (Nathan Birnbaum) (comedian); New York City, Jan. 20, 1896.

BURROWS, Abe (comedian, gag writer); New York City, Dec. 18, 1910.

CAGNEY, James (actor); New York City, July 17, 1904.

CALHERN, Louis (actor); New York City, 1895.

CALLOWAY, Cab (band leader); Rochester, N. Y., Dec. 25, 1907.

CANOVA, Judy (actress); Jacksonville, Fla., Nov. 20, 1916.

CANTOR, Eddie (Edward Iskowitz) (actor); New York City, Jan. 31, 1892.

CAPRA, Frank (director); Palermo, Sicily, May 18, 1897.

CARLE, Frankie (pianist); Providence, R.I., Mar. 15, 1903.

CARMICHAEL, Hoagy (Hoagland) (song writer); Bloomington, Ind., Nov. 22, 1899.

CARRADINE, John (actor); New York City, Feb. 5, 1906.

CARROLL, Madeleine (actress); Bromwich, Eng., Feb. 26, 1909.

CARSON, Jack (actor); Carman, Can., Oct. 27, 1910.

CAVALLERO, Carmen (band leader); New York City, May 6, 1913.

CHANNING, Carol (comedian); Seattle, Wash., Jan. 31, 1921.

CHAPLIN, Charles (actor); London, Eng., Apr. 16, 1889.

CHASE, Ilka (actress); New York City, Apr. 8, 1905.

CHEVALIER, Maurice (actor); Paris, Fr., Sept. 12, 1888.

CHRISTIANS, Mady (actress); Vienna, Aus., Jan. 19, 1900.

CLAIR, René (René Chomette) (director); Paris, Fr., Nov. 11, 1898.

CLAIRE, Ina (Ina Fagan) (actress); Washington, D. C., Oct. 15, 1892.

CLARK, Bobby (actor); Springfield, Ohio, June 16, 1888.

COBURN, Charles (actor); Savannah, Ga., June 19, 1877.

COLBERT, Claudette (Lily Chauchoin) (actress); Paris, Fr., Sept. 13, 1905.

COLLINGE, Patricia (actress); Dublin, Ire., Sept. 20, 1894.

COLMAN, Ronald (actor); Richmond, Eng., Feb. 9, 1891.

COLONNA, Jerry (comedian); Boston, Mass., Mar. 25, 1903.

COMO, Perry (Pierino) (singer, actor); Canonsburg, Pa., May 18, 1913.

CONTE, Richard (actor); New York City, Mar. 24, 1914.

COOGAN, Jackie (actor); Los Angeles, Calif., Oct. 26, 1914.

COOPER, Gary (Frank) (actor); Helena, Mont., May 7, 1901.

COOPER, Jackie (actor); Los Angeles, Calif., Sept. 15, 1922.

CORBETT, Leonora (actress); London, Eng., June 28, 1908.

CORNELL, Katharine (actress); Berlin, Ger., Feb. 16, 1898.

CORRELL, Charles J. *See* Andy.

COSTELLO, Lou (Louis Cristillo) (actor); Paterson N. J., Mar. 6, 1908.

COTTEN, Joseph (actor); Petersburg, Va., 1905.

CRAIN, Jeanne (actress); Barstow, Calif., May 25, 1925.

CRAWFORD, Broderick (actor); Philadelphia, Pa., Dec. 9, 1911.

CRAWFORD, Joan (Lucille LeSueur) (actress); San Antonio, Tex., Mar. 23, 1908.

CRISP, Donald (actor); London, Eng.

CROSBY, Bing (Harry) (actor, singer); Tacoma, Wash., May 2, 1904.

CROSS, Milton (announcer); New York City, Apr. 16, 1897.

CUGAT, Xavier (orch. ldr.); Barcelona, Sp., Jan. 1, 1900.

CUMMINGS, Robert (actor); Joplin, Mo., June 9, 1910.

CURTIZ, Michael (director); Budapest, Hung., Dec. 24, 1888.

DARNELL, Linda (actress); Dallas, Tex.

DARRIEUX, Danielle (actress); Bordeaux, Fr., May 1, 1917.

DAVIS, Bette (actress); Lowell, Mass., Apr. 5, 1908.

DAVIS, Joan (actress); St. Paul, Minn.

DAY, Dennis (singer); New York City, May 21, 1917.

DAY, Doris (singer); Cincinnati, Ohio, Apr. 3, 1924.

DAY, Laraine (Loraine Johnson) (actress); Roosevelt, Utah, Oct. 13, 1920.

DE HAVILLAND, Olivia (actress); Tokyo, Jap., July 1, 1916.

DeMILLE, Agnes (choreographer); New York City.

DeMILLE, Cecil B. (director); Ashfield, Mass., Aug. 12, 1881.

DIETRICH, Marlene (Mary Magdalene Von Losch) (actress); Berlin, Ger., Dec. 27, 1904.

DISNEY, Walt (animated cartoonist); Chicago, Ill., Dec. 5, 1901.

DONAT, Robert (actor); Withington, Eng., Mar. 18, 1905.

DONLEVY, Brian (actor); Portadown, Ire., Feb. 9, 1903.

DORSEY, Tommy (band leader); Mahanoy Plane, Pa., Nov. 19, 1905.

DOUGLAS, Kirk (actor); Amsterdam, N. Y., Dec. 9, 1916.

DOUGLAS, Melvyn (Melvyn Hesselberg) (actor); Macon, Ga., Apr. 5, 1901.

DOUGLAS, Paul (actor); Philadelphia, Pa., Apr. 11, 1907.

DOWLING, Eddie (actor, director); Woonsocket, R. I., Dec. 9, 1894.

DOWNEY, Morton (singer); Wallingford, Conn., Nov. 14, 1902.

DRAKE, Alfred (singer, actor); New York City, Oct. 7, 1914.

DRAPER, Paul (dancer); Florence, It., Oct. 25, 1911.

DRAPER, Ruth (actress); New York City, Dec. 2, 1884.

DUNCAN, Todd (actor, singer); Danville, Ky., Feb. 12, 1903.

DUNN, James (actor); New York City, Nov. 2, 1905.

DUNNE, Irene (actress); Louisville, Ky., Dec. 20, 1904.

DURANTE, Jimmy (actor); New York City, Feb. 10, 1893.

DURBIN, Deanna (Edna) (actress); Winnipeg, Can., Dec. 4, 1922.

ECKSTINE, Billy (singer); Pittsburgh, Pa., 1914.

EDDY, Nelson (actor, singer); Providence, R. I., June 29, 1901.

EDWARDS, Joan (actress); New York City, July 15, 1920.

ELLINGTON, Duke (Edward) (band leader); Washington, D. C., Apr. 29, 1899.

ELLIOTT, Bill (actor); Pattonsburg, Mo.

EMERSON, Faye (actress); Elizabeth, La., July 8, 1917.

EVANS, Maurice (actor); Dorchester, Eng., June 3, 1901.

FAIRBANKS, Douglas, Jr., (actor); New York City, Dec. 9, 1909.

FALKENBURG, Jinx (Eugenia) (actress); Barcelona, Sp., Jan. 21, 1919.

FAY, Frank (actor); San Francisco, Calif., Nov. 17, 1897.

FAYE, Alice (Alice Leppert) (actress); New York City, May 5, 1915.

FERRER, Jose (actor); Puerto Rico, 1909.

FIELD, Betty (actress); Boston, Mass., Feb. 8, 1918.

FIELDS, Gracie (actress); Rochdale, Eng., Jan. 9, 1898.

FITZGERALD, Barry (William J. Shields) (actor); Dublin, Ire., Mar. 1888.

FITZGERALD, Ella (singer); Newport News, Va., Apr. 25, 1918.

FITZGERALD, Geraldine (actress); Dublin, Ire., Nov. 24, 1914.

FLYNN, Errol (actor); Hobart, Tasmania, June 20, 1909.

FONDA, Henry (actor); Grand Island, Nebr., May 16, 1905.

FONTAINE, Joan (actress); Tokyo, Jap., Oct. 22, 1917.

FONTANNE, Lynn (actress); London, Eng., 1887.

FORD, Glenn (Gwyllyn Ford) (actor); Quebec, Can., May 1, 19??.

FORD, John (director); Cape Elizabeth, Maine, Feb. 1, 1895.

FOSTER, Preston, (actor); Ocean City, N. J., Aug. 24, 1902.

FOY, Eddie, Jr., (actor, dancer); New Rochelle, N. Y., Feb. 4, 1905.

FRANCIS, Kay (Katherine Gibbs) (actress); Oklahoma City Okla., Jan. 13, 1905.

FRIML, Rudolf (operetta composer); Prague, Czech., Dec. 7, 1884.

FROMAN, Jane (singer); St. Louis, Mo., Nov. 10, 1911.

GABIN, Jean (actor); Paris, Fr., May 17, 1904.

GABLE, Clark (actor); Cadiz, Ohio, Feb. 1, 1901.

GARBO, Greta (Greta Gustafsson) (actress); Stockholm, Swed., Sept. 18, 1905.

GARDINER, Reginald (actor); Wimbledon, Eng., Feb. 27, 1903.

GARDNER, Ed (Edward Poggenberg) (actor); Astoria, N. Y., June 29, 1905.

GARFIELD, John (Julius Garfinkle) (actor); New York City, Mar. 4, 1913.

GARGAN, William (actor); Brooklyn, N. Y., July 17, 1905.

GARLAND, Judy (Frances Gumm) (actress); Grand Rapids, Minn., June 10, 1922.

GARSON, Greer (actress); County Down, Ire.

GAXTON, William (Arturo Caxiola) (actor); San Francisco, Calif., Dec. 2, 1893.

GEORGE, Gladys (Gladys Clare) (actress); Patton, Maine, Sept. 13, 1904.

GERSHWIN, Ira (lyricist); New York City, Dec. 6, 1896.

GIELGUD, John (actor); London, Eng., Apr. 14, 1904.

GISH, Dorothy (actress); Massillon, Ohio, Mar. 11, 1898.

GISH, Lillian (actress); Springfield, Ohio, Oct. 14, 1896.

GLEASON, James (actor); New York City, May 23, 1886.

GODDARD, Paulette (actress); Great Neck, N. Y., June 3, 1911.

GODFREY, Arthur (radio broadcaster); New York City, Aug. 31, 1903.

GOLDEN, John (producer); New York City, June 27, 1874.

GOLDWYN, Samuel (Samuel Goldfish) (producer); Warsaw, Pol., 1882.

GOODMAN, Benny (band leader); Chicago, Ill., May 30, 1909.

GORDON, Max (producer); N. Y. C., 1892.

GORDON, Ruth (actress); Wollaston, Mass., Oct. 30, 1896.

GOSDEN, Freeman F. *See* Amos.

GOULD, Morton (composer); Richmond Hill, N. Y., Dec. 10, 1913.

GRABLE, Betty (actress); St. Louis, Mo., Dec. 18, 1916.

GRAHAM, Martha (choreographer); Pittsburgh, Pa.

GRANGER, Farley (actor); San Jose, Calif., July 1, 1925.

GRANGER, Stewart (James Stewart) (actor); May 6, 1913.

GRANT, Cary (Archibald A. Leach) (actor); Bristol, Eng., Jan. 18, 1904.

GRAYSON, Kathryn (Zelma Hedrick) (actress); Winston-Salem, N. C.

GREENSTREET, Sydney (actor); Sandwich, Eng., Dec. 27, 1879.

GUINNESS, Alec (actor); Marylebone, London, Eng., Apr. 2, 1914.

GUITRY, Sacha (Alexandre) (director); St. Petersburg, Rus., Feb. 21, 1885.

GWENN, Edmund (actor); London, Eng., Sept. 26, 1877.

HALEY, Jack (actor); Boston, Mass., Aug. 10, 1902.

HAMMERSTEIN, Oscar, II (librettist); New York City, July 12, 1895.

HAMPDEN, Walter (Walter Hampden Dougherty) (actor); Brooklyn, N. Y., June 30, 1879.

HANDY, William C. (blues composer); Florence, Ala., Nov. 16, 1873.

HARDWICKE, Sir Cedric (actor); Lye, Eng., Feb. 19, 1893.

HARRIS, Phil (band leader); Linton, Ind., June 24, 1906.

HARRISON, Rex (actor); Huyton, Eng., Mar. 5, 1908.

HAYES, Helen (Helen Brown) (actress); Washington, D. C., Oct. 10, 1900.

HAYMES, Dick (singer); Tarrytown, N. Y.

HAYWARD, Susan (Edythe Marrener) (actress); Brooklyn, N. Y., Jan. 30, 1918.

HAYWORTH, Rita (Margarita Cansino) (actress); N. Y. C., Oct. 17, 1918.

HEFLIN, Van (actor); Walters, Okla., Dec. 13, 1910.

HENIE, Sonja (actress, skater); Oslo, Nor., Apr. 8, 1913.

HENREID, Paul (actor); Trieste, It., Jan. 10, 1908.

HEPBURN, Katharine (actress); Hartford, Conn., 1909.

HERMAN, Woody (band ldr.); Milwaukee, Wis., May 16, 1913.

HERSHOLT, Jean (actor); Copenhagen, Den., July 12, 1886.

HILDEGARDE (Hildegarde Loretta Sell) (entertainer); Adell, Wis., Feb. 1, 1906.

HILLER, Wendy (actress); Branhall, Eng., Aug. 15, 1912.

HILLIARD, Harriet (Peggy Lou Snyder) (actress, singer); Des Moines, Iowa.

HITCHCOCK, Alfred J. (director); England, Aug. 13, 1899.

HOLDEN, William (actor); O'Fallon, Ill., Apr. 17, 1918.

HOLLIDAY, Billie (singer); Baltimore, Md., 1919(?).

HOLLIDAY, Judy (actress); New York City, June 21, 1923.

HOLM, Celeste (actress, singer); New York City, Apr. 29, 1919.

HOLT, Tim (actor); Beverly Hills, Calif., Feb. 5, 1918.

HOMOLKA, Oscar (actor); Vienna, Aus., 1901.

HOPE, Bob (actor); London, Eng., May 29, 1903.

HOPKINS, Miriam (actress); Bainbridge, Ga., Oct. 18, 1902.

HORNE, Lena (actress, singer); Brooklyn, N. Y., 1918.

HORTON, Edward Everett (actor); Brooklyn, N. Y., Mar. 18, 1887.

HULL, Henry (actor); Louisville, Ky., Oct. 3, 1890.

HULL, Josephine (actress); Newtonville, Mass., Jan. 3, 1886.

HUNT, Marsha (actress); Chicago, Ill., Oct. 17, 1917.

HUNTER, Ian (actor); Cape Town, S. Af., June 13, 1900.

HUSSEY, Ruth (actress); Providence, R. I.

HUSTON, John (director); Nevada, Mo., Aug. 5, 1906.

HUTTON, Betty (Betty Thornberg) (actress, singer); Battle Creek, Mich., Feb. 26, 1921.

IVES, Burl (folksinger); Hunt, Ill., June 14, 1909.

JAFFE, Sam (actor); New York City, Mar. 8, 1898.

JAGGER, Dean (actor); Lima, Ohio, Nov. 7, 1903.

JAMES, Harry (band leader); Albany, Ga., Mar. 15, 1916.

JANIS, Elsie (Elsie Bierbower) (actress); Columbus, Ohio, Mar. 16, 1889.

JESSEL, George (actor); New York City, Apr. 3, 1898.

JOHNSON, Celia (actress); Richmond, Eng., Dec. 18, 1908.

JOHNSON, Chick (Harold) (actor); Chicago, Ill., Mar. 5, 1895.

JOHNSON, Van (actor); Newport, R. I., Aug. 20, 1916.

JONES, Jennifer (Phyllis Isley) (actress); Tulsa, Okla., Mar. 2, 1919.

JORDAN, James. *See* McGee.

JORDAN, Marian. *See* McGee.

JORY, Victor (actor); Dawson, Can., Nov. 23, 1902.

JOURDAN, Louis (actor); Marseille, Fr., June 18, 1921.

KARLOFF, Boris (Charles E. Pratt) (actor); Dulwich, Eng., Nov. 23, 1887.

KAYE, Danny (actor); Brooklyn, N. Y., Jan. 18, 1913.

KAZAN, Elia (director); Istanbul, Turk., Sept. 7, 1909.

KEATON, Buster (actor); Pickway, Kans., Oct. 4, 1896.

KELLY, Gene (actor); Pittsburgh, Pa., Aug. 23, 1912.

KELLY, Paul (actor); Brooklyn, N. Y., Aug. 8, 1899.

KENNEDY, Arthur (actor); Worcester, Mass., Feb. 17, 1914.

KERR, Deborah (actress); Helensburgh, Scot., Sept. 30, 1921.

KING, Dennis (actor); Coventry, Eng., Nov. 2, 1897.

KING, Henry (director); Christianburg, Va., Jan. 24, 1896.

KING, Wayne (band leader); Savannah, Ill., Feb. 18, 1901.

KNOX, Alexander (actor); Strathroy, Can., Jan. 16, 1907.

KORDA, Sir Alexander (producer); Turkeve, Hung., Sept. 16, 1893.

KRAMER, Stanley E. (producer); New York City, Sept. 29, 1913.

KRUGER, Otto (actor); Toledo, Ohio, Sept. 6, 1885.

KRUPA, Gene (band ldr.); Chicago, Ill., Jan. 15, 1909.

KYSER, Kay (band leader); Rocky Mount, N. C., June 18, 1905.

LADD, Alan (actor); Hot Springs, Ark., Sept. 3, 1913.

LAHR, Bert (Irving Lashrheim) (actor); New York City, Aug. 13, 1895.

LAKE, Veronica (Constance Keane) (actress); Lake Placid, N. Y., Nov. 14, 1919.

LAMARR, Hedy (actress); Vienna, Aus.

LAMOUR, Dorothy (actress); New Orleans, La., Dec. 10, 1914.

LANCASTER, Burt (actor); New York City, Nov. 2, 1913.

LANCHESTER, Elsa (Elsa Sullivan) (actress); London, Eng., Oct. 28, 1902.

LANG, Fritz (director); Vienna, Aus., Dec. 5, 1890.

LANGFORD, Frances (singer); Lakeland, Fla., Apr. 4, 1913.

LAUGHTON, Charles (actor); Scarborough, Eng., July 1, 1899.

LAWFORD, Peter (actor); London, Eng., Sept. 7, 1923.

LAWRENCE, Gertrude (Gertrud Klasen) (actress); London, Eng., July 4, 1900.

LEE, Canada (actor); New York City, Mar. 2, 1907.

LEE, Gypsy Rose (Rose Hovic) (actress); Seattle, Wash., Feb. 9, 1914.

LE GALLIENNE, Eva (actress, director), London, Eng., Jan. 11, 1899.

LEIGH, Vivien (Vivian Hartley) (actress); Darjeeling, India, Nov. 5, 1913.

LEROY, Mervyn (producer, director); San Francisco, Calif., Oct. 15, 1900.

LESLIE, Joan (Joan Brodell) (actress); Detroit, Mich., Jan. 26, 1925.

LEVENE, Sam (actor); New York City, 1907.

LEWIS, Jerry (comedian); Newark, N. J., Mar. 16, 1926.

LEWIS, Joe E. (comedian); New York City.

LILLIE, Beatrice (actress); Toronto, Can., May 29, 1898.

LIVESY, Roger (actor); Barry, Wales, June 25, 1906.

LLOYD, Harold (actor); Burchard, Nebr., Apr. 20, 1894.

LOCKHART, Gene (actor); London, Can., July 25, 1892.

LOCKHART, June (actress); New York City, June 25, 1925.

LOCKWOOD, Margaret (actress); Karachi, India, 1916.

LOESSER, Frank (composer); New York City, June 29, 1910.

LOGAN, Joshua (director, playwright); Texarkana, Tex., Oct. 5, 1908.

LOMBARDO, Guy (band leader); London, Can., June 19, 1902.

LOPEZ, Vincent (band leader); Brooklyn, N. Y., Dec. 10, 1898.

LORRE, Peter (actor); Rosenberg, Hung., June 26, 1904.

LOY, Myrna (Myrna Williams); (actress); near Helena, Mont., Aug. 2, 1905.

LUGOSI, Bela (Bela Lugosi Blasko) (actor); Lugos, Hung., Oct. 20, 1888.

LUKAS, Paul (actor); Budapest, Hung., May 26, 1895.

LUND, John (actor); Rochester, N. Y., Feb. 6, 1914.

LUNT, Alfred (actor); Milwaukee, Wis., 1893.

LUPINO, Ida (actress); London, Eng., Feb. 4, 1918.

LYNN, Diana (Dolly Loehr) (actress); Los Angeles, Calif., Oct. 7, 1926.

LYTELL, Bert (actor, director); New York City, 1885.

McCAMBRIDGE, Mercedes (actress); Joliet, Ill., Mar 17, 1918.

McCAREY, Leo (director); Los Angeles, Calif., Oct. 3, 1898.

McCREA, Joel (actor); Los Angeles, Calif., Nov. 5, 1906.

MacDONALD, Jeanette (actress, soprano); Philadelphia, Pa., June 18, 1907.

McDOWALL, Roddy (actor); London, Eng., Sept. 17, 1928.

McGEE, Fibber (James Jordan) (actor); Peoria, Ill., Nov. 16, 1896.

McGEE, Molly (Marian Jordan) (actress); Peoria, Ill., Apr. 15, 1898.

McGUIRE, Dorothy (actress); Omaha, Nebr., June 14, 1919.

McLAGLEN, Victor (actor); Tunbridge Wells, Eng., Dec. 11, 1886.

MacMURRAY, Fred (actor); Kankakee, Ill., Aug. 30, 1908.

McRAE, Gordon (singer); East Orange, N. J., Mar. 12, 1921.

MANKIEWICZ, Joseph L. (director); Wilkes-Barre, Pa., Feb. 11, 1909.

MARCH, Fredric (Frederick Bickel) (actor); Racine, Wis., Aug. 31, 1897.

MARGO (Maria Boldao y Castilla) (actress); Mexico City, May 10, 1918.

MARKOVA, Alicia (dancer); London, Eng., Dec. 1, 1910.

MARSHALL, Herbert (actor); London, Eng., May 23, 1890.

MARTIN, Dean (comedian): Steubenville, Ohio, June 7, 1917.

MARTIN, Mary (actress); Weatherford, Tex., Dec. 1, 1914.

MARTIN, Tony (actor, singer); San Francisco, Calif., Dec. 25, 1914.

MARX, Chico (Leonard) (actor); New York City, Mar. 22, 1891.

MARX, Groucho (Julius) (actor); New York City, Oct. 2, 1895.

MARX, Harpo (Arthur) (actor); New York City, Nov. 23, 1893.

MASON, James (actor); Huddersfield, Eng., May 15, 1909.

MASSEY, Ilona (Ilona Hajmassy) (actress); Hungary, 1910.

MASSEY, Raymond (actor); Toronto, Can., Aug. 30, 1896.

MASSINE, Léonide (choreographer); Moscow, Rus., Aug. 9, 1896.

MATURE, Victor (actor); Louisville, Ky., Jan. 29, 1916.

MAYER, Louis B. (producer); Minsk, Rus., July 4, 1885.

MAYO, Virginia (Virginia Jones) (actress); St. Louis, Mo., Nov. 30, 1920.

MENJOU, Adolphe (actor); Pittsburgh, Pa., Feb. 18, 1890.

MERCER, Johnny (singer, composer); Savannah, Ga., Nov. 18, 1909.

MEREDITH, Burgess (actor); Cleveland, Ohio, Nov. 16, 1908.

MERMAN, Ethel (Ethel Zimmerman) (actress, singer); Astoria, N. Y., Jan. 16, 1909.

MILLAND, Ray (Jack Millane) (actor); Neath, Wales, Jan. 3, 1907.

MILLS, John (actor); Suffolk, Eng., Feb. 22, 1908.

MIRANDA, Carmen (Maria do Carmo Miranda da Cunha) (actress, singer); Marco Canavezes, Port., 1915.

MITCHELL, Thomas (actor); Elizabeth, N. J., July 11, 1895.

MITCHUM, Robert (actor); Rising Sun, Del.

MONROE, Vaughn (band leader); Akron, Ohio; Oct. 7, 1912.

MONTGOMERY, Robert (Henry, Jr.) (actor); Beacon, N. Y., May 21, 1904.

MOORE, Victor (actor); Hammonton, N. J., Feb. 24, 1876.

MORGAN, Dennis (Stanley Morner) (actor); Prentice, Wis., Dec. 10, 1920.

MORGAN, Henry (Henry von Ost, Jr.) (comedian); N. Y. C., Mar. 31, 1915.

MORGAN, Michele (Simone Roussel) (actress); Paris, Fr., Feb. 29, 1920.

MORGAN, Ralph (actor); New York City, July 6, 1888.

MORISON, Patricia (actress); New York City, 1919.

MORLEY, Robert (actor); Wiltshire, Eng., May 26, 1908.

MUNI, Paul (Muni Weisenfreund) (actor); Lemberg, Aus., Sept. 22, 1895.

MURPHY, George (actor); New Haven, Conn., July 4, 1904.

MURRAY, Arthur (A. M. Teichman) (dancing teacher); New York City, Apr. 4, 1895.

NAISH, J. Carrol (actor); New York City, Jan. 21, 1900.

NATHAN, George Jean (critic); Ft. Wayne, Ind., Feb. 14, 1882.

NATWICK, Mildred (actress); Baltimore, Md., June 19, 1908.

NEAGLE, Anna (Marjorie Robertson) (actress); nr. London, Eng., Oct. 20, 1904.

NEGRI, Pola (Appollonia Chalupec) (actress); Lipno, Pol., 1899.

NELSON, Ozzie (Oswald) (actor, band ldr.); Jersey City, N. J., 1906.

NICHOLS, Dudley (producer, director); Wapakoneta, Ohio, Apr. 6, 1895.

NIVEN, David (actor); Scotland.

NOBLE, Ray (band ldr.); Brighton, Eng., Dec. 17, 1908.

NUGENT, Elliott (actor, director); Dover, Ohio, Sept. 20, 1899.

OAKIE, Jack (Lewis Offield) (actor); Sedalia, Mo., Nov. 12, 1903.

OBERON, Merle (Merle O'Brien Thompson) (actress); Tasmania, Feb. 19, 1911.

O'BRIEN, Margaret (actress); Los Angeles, Calif., Jan. 15, 1937.

O'BRIEN, Pat (actor); Milwaukee, Wis., Nov. 11, 1899.

O'HARA, Maureen (Maureen Fitzsimmons) (actress); Dublin, Ire., Aug. 17, 1920.

OLIVIER, Sir Laurence (actor); Dorking, Eng., May 22, 1907.

OLSEN, Ole (John) (actor); Wabash, Ind., Nov. 6, 1892.

O'SULLIVAN, Maureen (actress); Boyle, Ire., May 17, 1911.

OWEN, Reginald (actor); Wheathampstead, Eng., Aug. 5, 1887.

PALMER, Lilli (actress); Posen, Germany, May 27, 1917.

PARKER, Jean (Mae Green) (actress); Deer Lodge, Mont.

PARKS, Larry (actor); Olathe, Kans.

PASTERNAK, Joseph (producer); Simleul-Silvaniei, Rum., Sept. 19, 1901.

PAXINOU, Katina (actress); Piraeus, Greece.

PAYNE, John (actor); Roanoke, Va.

PECK, Gregory (actor); La Jolla, Calif., Apr. 5, 1916.

PIAF, Edith (singer); Paris, Fr.

PICKFORD, Mary (Gladys Mary Smith) (actress); Toronto, Can., Apr. 8, 1893.

PIDGEON, Walter (actor); East St. John, Can., Sept. 23, 1898.

PORTER, Cole (song writer); Peru, Ind., June 9, 1893.

POWELL, Dick (actor); Mt. View, Ark., Nov. 14, 1904.

POWELL, William (actor); Pittsburgh, Pa., July 29, 1892.

POWER, Tyrone (actor); Cincinnati, Ohio, May 5, 1914.

PREMINGER, Otto (producer, director); Vienna, Aus., Dec. 5, 1906.

PRICE, Vincent (actor); St. Louis, Mo., May 27, 1911.

RAFT, George (actor); New York City, Sept. 27, 19??.

RAINER, Luise (actress); Vienna, Aus., 1912.

RAINS, Claude (actor); London, Eng., Nov. 10, 1889.

RANK, J. Arthur (producer); Hull, Eng., Dec. 23, 1888.

RATHBONE, Basil (actor); Johannesburg, U. of S. Af., June 13, 1892.

RATOFF, Gregory (director); St. Petersburg, Rus., Apr. 20, 1897.

REAGAN, Ronald (actor); Tampico, Ill.

REDGRAVE, Michael (actor); Bristol, Eng., Mar. 20, 1908.

RICE, Florence (actress); Cleveland, Ohio, Feb. 14, 1911.

RICHARDSON, Ralph (actor); Cheltenham, Eng., Dec. 19, 1902.

ROBBINS, Jerome (Jerome Rabinowitz) (choreographer); N. Y. C., Oct. 11, 1918.

ROBINSON, Edward G. (Emanuel Goldenberg) (actor); Bucharest, Rum., Dec. 12, 1893.

ROBSON, Flora (actress); South Shields, Eng., Mar. 28, 1902.

ROCHESTER (Eddie Anderson) (comedian); Oakland, Calif., Sept. 18, 1905.

RODGERS, Richard (song writer); New York City, June 28, 1902.

ROGERS, Ginger (Virginia McMath). (actress, dancer); Independence, Mo., July 16, 1911.

ROGERS, Roy (Leonard Slye) (actor); Cincinnati, Ohio, Nov. 5, 1912.

ROMAN, Ruth (actress); Boston, Mass., Dec. 23, 1924.

ROMBERG, Sigmund (operetta composer); Szeged, Hung., July 29, 1887.

ROMERO, Cesar (actor); New York City, Feb. 15, 1907.

ROONEY, Mickey (Joe Yule, Jr.) (actor); Brooklyn, N. Y., Sept. 23, 1922.

ROSE, Billy (William S. Rosenberg) (producer); New York City, Sept. 6, 1899.

ROSSELLINI, Roberto (director); Rome, It., May 8, 1906.

RUGGLES, Charles (actor); Los Angeles, Calif., Feb. 8, 1892.

RUSSELL, Rosalind (actress); Waterbury, Conn., June 4, 1912.

RYAN, Robert (actor); Chicago, Ill., Nov. 11, 1913.

SABLON, Jean (singer); Paris, Fr., Mar. 25, 1912.

ST. DENIS, Ruth (Ruth Denis) (dancer); Newark, N. J., Jan. 20, 1880.

SANDERS, George (actor); St. Petersburg, Rus., 1906.

SAVO, Jimmie (entertainer); New York City, 1895.

SCHARY, Dore (producer); Newark, N. J., Aug. 31, 1905.

SCHILDKRAUT, Joseph (actor); Vienna, Aus., Mar. 22, 1895.

SCOTT, Hazel (pianist); Port of Spain, Trin., June 11, 1920.

SCOTT, Martha (actress); Jamesport, Mo., Sept. 22, 1916.

SCOTT, Randolph (actor); Orange Co., Va., Jan. 23, 1903.

SCOTT, Raymond (band leader); Brooklyn, N. Y., Sept. 10, 1909.

SCOTT, Zachary (actor); Austin, Tex., Feb. 24, 1914.

SELZNICK, David O. (producer); Pittsburgh, Pa., May 10, 1902.

SHAW, Artie (clarinetist); New York City, May 23, 1910.

SHAWN, Ted (Edwin) (dancer); Kansas City, Mo., Oct. 21, 1891.

SHEARER, Norma (actress); Montreal, Can., Aug. 10, 1902.

SHERIDAN, Ann (actress); Denton, Tex., Feb. 21, 1915.

SHIRLEY, Anne (Dawn Paris) (actress); New York City, Apr. 17, 1918.

SHORE, Dinah (actress, singer); Winchester, Tenn., Mar. 1, 1917.

SIDNEY, Sylvia (Sophia Koskow) (actress); New York City, Aug. 8, 1910.

SINATRA, Frank (actor, singer); Hoboken, N. J., 1918.

SKELTON, Red (Richard) (actor); Vincennes, Ind., July 18, 1913.

SKINNER, Cornelia Otis (actress); Chicago, Ill., May 30, 1901.

SLEEPER, Martha (actress); Lake Bluff, Ill., June 24, 1911.

SLEZAK, Walter (actor); Vienna, Aus., May 3, 1902.

SMITH, Kate (Kathryn) (singer); Washington, D. C., 1910.

SOKOLOFF, Vladimir (actor); Moscow, Rus., Dec. 26, 1889.

SOTHERN, Ann (Harriet Lake) (actress); Valley City, N. Dak., Jan. 22, 1911.

STANWYCK, Barbara (Ruby Stevens) (actress); Brooklyn, N. Y., July 16, 1907.

STEWART, James (actor); Indiana, Pa., May 20, 1908.

STICKNEY, Dorothy (actress); Dickinson, N. Dak., June 21, 1900.

STONE, Ezra (actor, director); New Bedford, Mass., Dec. 2, 1917.

STONE, Fred A. (actor); Valmont, Colo., Aug. 19, 1873.

STURGES, Preston (Preston Biden) (playwright, director); Chicago, Ill., Aug. 29, 1898.

SULLAVAN, Margaret (actress); Norfolk, Va., May 16, 1911.

SWANSON, Gloria (Josephine Swenson) (actress); Chicago, Ill., Mar. 27, 1898.

TANDY, Jessica (Jessica Cronyn) (actress); London, Eng., June 7, 1909.

TAYLOR, Robert (S. Arlington Brugh) (actor); Filley, Nebr., Aug. 5, 1911.

TEARLE, Godfrey (actor); New York City, Oct. 12, 1884.

TEMPLE, Shirley (actress); Santa Monica, Calif., Apr. 23, 1928.

THORNHILL, Claude (band ldr.); Terre Haute, Ind., Aug. 10, 1908.

TIERNEY, Gene (actress); Brooklyn, N. Y., Nov. 20, 1920.

TODD, Ann (actress); Hartford, Cheshire, Eng., Jan. 24, 1910.

TONE, Franchot (actor); Niagara Falls, N. Y., Feb. 27, 1905.

TORME, Mel (singer); Chicago, Ill., Sept. 13, 19??.

TRACY, Spencer (actor); Milwaukee, Wis., Apr. 5, 1900.

TRAVERS, Henry (actor); Ireland.

TREACHER, Arthur V. (actor); Brighton, Eng.

TREVOR, Claire (actress); New York City, Mar. 8, 1909.

TRUEX, Ernest (actor); Kansas City, Mo., Sept. 19, 1890.

TUCKER, Sophie (Sophie Abuza) (actress, entertainer); Russia, 1884.

TUFTS, Sonny (actor); Boston, Mass.

TURNER, Lana (Julia Jean Turner) (actress); Wallace, Idaho, Feb. 8, 1920.

VALLEE, Rudy (Hubert) (actor, band leader); Island Pond, Vt., July 28, 1901.

VENUTA, Benay (singer); San Francisco, Calif., Jan. 27, 1912.

VIDOR, King (director, producer); Galveston, Tex., Feb. 8, 1895.

VON STROHEIM, Erich (actor, director); Vienna, Aus., Sept. 22, 1885.

WALKER, Nancy (Ann Myrtle Swoyer) (actress); Philadelphia, Pa.

WARING, Fred (band leader); Tyrone, Pa., June 9, 1900.

WATERS, Ethel (actress, singer); Chester, Pa., Oct. 31, 1900.

WAYNE, David (actor); Traverse City, Mich., Jan. 30, 1914.

WAYNE, John (Marion Michael Morrison) (actor); Winterset, Iowa, May 26, 1907.

WEBB, Clifton (actor); Indiana, 1891.

WEBSTER, Margaret (actress, director); New York City, Mar. 15, 1905.

WELLES, Orson (actor, director); Kenosha, Wis., May 6, 1915.

WEST, Mae (actress); Brooklyn, N. Y., Aug. 17, 1892.

WHITEMAN, Paul (band leader); Denver, Colo., 1891.

WHORF, Richard (actor); Winthrop, Mass.

WIDMARK, Richard (actor); Sunrise, Minn., Dec. 26, 1914.

WILDE, Cornel (actor); New York City, Oct. 13, 1915.

WILLIAMS, Esther (actress, swimmer); Los Angeles, Calif.

WINNINGER, Charles (actor); Athens, Wis., May 26, 1884.

WOOD, Peggy (actress); Brooklyn, N. Y., Feb. 9, 1892.

WOOLLEY, Monte (Edgar) (actor); New York City, Aug. 17, 1888.

WRIGHT, Teresa (actress); New York City, Oct. 27, 1918.

WYATT, Jane (actress); Campgaw, N. J., Aug. 12, 1912.

WYLER, William (director); Mulhouse, Fr., July 1, 1902.

WYMAN, Jane (Sarah Fulks) (actress); St. Joseph, Mo., Jan. 4, 1914.

WYNN, Ed (Edwin Leopold) (actor); Philadelphia, Pa., Nov. 9, 1886.

WYNN, Keenan (actor); New York City, July 27, 1916.

YOUNG, Loretta (Gretchen) (actress); Salt Lake City, Utah, Jan. 6, 1913.

YOUNG, Robert (actor); Chicago, Ill., Feb. 22, 1907.

YOUNG, Roland (actor); London, Eng., Nov. 11, 1887.

YURKA, Blanche (actress); St. Paul, Minn., June 19, 1893.

ZANUCK, Darryl F. (director); Wahoo, Nebr., Sept. 5, 1902.

ZORINA, Vera (Eva Hartwig) (dancer); Kristiansand, Nor., Jan. 2, 1917.

ZUKOR, Adolph (producer); Ricse, Hung., Jan. 7, 1873.

Literature

ADAMS, Franklin P. (columnist); Chicago, Ill., Nov. 15, 1881.

ADAMS, Samuel Hopkins (novelist); Dunkirk, N. Y., Jan. 26, 1871.

ADLER, Mortimer J. (philosopher); New York City, Dec. 28, 1902.

AIKEN, Conrad (poet); Savannah, Ga., Aug. 5, 1889.

AKINS, Zoë (playwright); Humansville, Mo., Oct. 30, 1886.

ALDINGTON, Richard (poet); Hampshire, Eng., 1892.

AMORY, Cleveland (novelist); Nahant, Mass., Sept. 2, 1917.

ANDERSON, Maxwell (playwright); Atlantic, Pa., Dec. 15, 1888.

ARAGON, Louis (poet); France, 1895.

ASCH, Sholem (novelist); Kutno, Pol., Nov. 1, 1880.

AUDEN, Wystan Hugh (poet); York, Eng., Feb. 21, 1907.

BALDWIN, Faith (novelist); New Rochelle, N. Y., Oct. 1, 1893.

BARNES, Margaret Ayer (novelist); Chicago, Ill., Apr. 8, 1886.

BAUM, Vicki (novelist); Vienna, Aus., Jan. 24, 1896.

BEARD, Mary R. (sociologist); Indianapolis, Ind., Aug. 5, 1876.

BEERBOHM, Sir Max (novelist); London, Eng., Aug. 24, 1872.

BEHRMAN, Samuel N. (playwright); Worcester, Mass., June 9, 1893.

BEMELMANS, Ludwig (essayist); Meran, Tirol, Apr. 27, 1898.

BENAVENTE Y MARTÍNEZ, Jacinto (playwright); Madrid, Sp., Aug. 12, 1866.

BOTTOME, Phyllis (novelist); Rochester, Eng., May 31, 1884.

BOYLE, Kay (novelist, poet); St. Paul, Minn., Feb. 19, 1903.

BRECHT, Bertolt (playwright); Augsburg, Bavaria, 1898.

BROMFIELD, Louis (novelist); Mansfield, Ohio, Dec. 27, 1896.

BROOKS, Van Wyck (critic); Plainfield, N. J., Feb. 16, 1886.

BROWN, John Mason (drama critic); Louisville, Ky., July 3, 1900.

BUCK, Pearl S. (novelist); Hillsboro, W. Va., June 26, 1892.

BUNIN, Ivan (novelist); Voronezh, Rus., Oct. 10, 1870.

BYNNER, Witter (poet); Brooklyn, N. Y., Aug. 10, 1881.

CABELL, James Branch (novelist); Richmond, Va., Apr. 14, 1879.

CAIN, James M. (novelist); Annapolis, Md., July 1, 1892.

CALDWELL, Erskine (novelist); White Oak, Ga., Dec. 17, 1903.

CALDWELL, Taylor (novelist); Preswich, Eng., Sept. 7, 1900.

CAMUS, Albert (novelist); Algiers, 1913.

CANBY, Henry Seidel (critic); Wilmington, Del., Sept. 6, 1878.

CAPOTE, Truman (novelist); New Orleans, La., Sept. 30, 1924.

CARROLL, Paul Vincent (playwright); Dundalk, Ire., July 10, 1900.

CHASE, Stuart (economist); Somersworth, N. H., Mar. 8, 1888.

CHRISTIE, Agatha (novelist); Torquay, Eng., 189?.

COCTEAU, Jean (poet, playwright); Maisons-Laffitte, Fr., July 5, 1891.

COFFIN, Robert P. T. (poet); Brunswick, Maine, Mar. 18, 1892.

COLUM, Padraic (poet, playwright); Longford, Ire., Dec. 8, 1881.

COMMAGER, Henry S. (historian); Pittsburgh, Pa., Oct. 25, 1902.

CONNELLY, Marc (playwright); McKeesport, Pa., Dec. 13, 1890.

CORWIN, Norman (radio dramatist); Boston, Mass., May 3, 1910.

COSTAIN, Thomas Bertram (novelist); Brantford, Can., May 8, 1885.

COWARD, Noel (playwright); Teddington, Eng., Dec. 16, 1899.

COWLEY, Malcolm (critic, editor); Belsano, Pa., Aug. 24, 1898.

COZZENS, James Gould (novelist); Chicago, Ill., Aug. 19, 1903.

CROCE, Benedetto (philosopher); Pescasseroli, It., Feb. 25, 1866.

CRONIN, Archibald J. (novelist); Cardross, Scot., July 19, 1896.

CROTHERS, Rachel (playwright); Bloomington, Ill., Dec. 12, 1878.

CROUSE, Russel (playwright); Findlay, Ohio, Feb. 20, 1893.

CUMMINGS, Edward E. (poet); Cambridge, Mass., Oct. 14, 1894.

DAVENPORT, Marcia (novelist); New York City, June 9, 1903.

DAVIS, Elmer (novelist, essayist); Aurora, Ind., Jan. 13, 1890.

DE LA MARE, Walter (poet); Charlton, Eng., Apr. 25, 1873.

DEUTSCH, Babette (poet, novelist); New York City, Sept. 22, 1895.

DE VOTO, Bernard (novelist, critic); Ogden, Utah, Jan. 11, 1897.

DEWEY, John (philosopher); Burlington, Vt., Oct. 20, 1859.

DOS PASSOS, John (novelist); Chicago, Ill., Jan. 14, 1896.

DOUGLAS, Norman (novelist); Scotland, Dec. 8, 1868.

DU MAURIER, Daphne (novelist); London, Eng., May 13, 1907.

EASTMAN, Max (social writer); Canandaigua, N. Y., Jan. 4, 1883.

EDMAN, Irwin (philosopher); New York City, Nov. 28, 1896.

EDMONDS, Walter (novelist); Boonville, N. Y., July 15, 1903.

ELIOT, Thomas S. (poet, essayist); St. Louis, Mo., Sept. 26, 1888.

FADIMAN, Clifton (critic); New York City, May 15, 1904.

FARRELL, James T. (novelist); Chicago, Ill., Feb. 27, 1904.

FAST, Howard (novelist); New York City, Nov. 11, 1914.

FAULKNER, William (novelist); New Albany, Miss., Sept. 25, 1897.

FERBER, Edna (novelist); Kalamazoo, Mich., Aug. 15, 1887.

FEUCHTWANGER, Lion (novelist); Munich, Ger., July 7, 1884.

FISHER, Dorothy Canfield (novelist); Lawrence, Kans., Feb. 17, 1879.

FISHER, Vardis (novelist); Annis, Idaho, Mar. 31, 1895.

FORESTER, Cecil S. (novelist); Cairo, Egypt, Aug. 27, 1899.

FORSTER, Edward M. (novelist); England, 1879.

FRANK, Waldo (novelist); Long Branch, N. J., Aug. 25, 1889.

FRANKEN, Rose (playwright, novelist); Gainesville, Tex., 1898.

FREEMAN, Douglas S. (historian); Lynchburg, Va., May 16, 1886.

FROST, Robert (poet); San Francisco, Calif., Mar. 26, 1875.

FRY, Christopher (playwright); Bristol, Eng., Dec. 18, 1907.

GALLICO, Paul (short story writer); New York City, July 26, 1897.

GANNETT, Lewis (critic); Rochester, N. Y., Oct. 3, 1891.

GARDNER, Erle Stanley (novelist); Malden, Mass., July 17, 1889.

GOLDING, Louis (novelist); Manchester, Eng., Nov. 19, 1895.

GRAVES, Robert (poet, novelist); London, Eng., July 26, 1895.

GREEN, Julian (novelist); Paris, Fr., Sept. 6, 1900.

GREEN, Paul (playwright); Lillington, N. C., Mar. 17, 1894.

GREGORY, Horace (poet); Milwaukee, Wis., Apr. 10, 1898.

GUNTHER, John (correspondent); Chicago, Ill., Aug. 30, 1901.

GUTHRIE, Alfred B., Jr. (novelist); Bedford, Ind., Jan. 13, 1901.

HACKETT, Francis (critic, novelist); Kilkenny, Ire., Jan. 21, 1883.

HAMMETT, Dashiell (novelist); St. Marys Co., Md., May 27, 1894.

HAMSUN, Knut (novelist); Lom, Nor., Aug. 4, 1859.

HART, Moss (playwright); New York City, Oct. 24, 1904.

HAYES, Alfred (novelist); London, 1911.

HECHT, Ben (novelist, playwright); New York City, Feb. 28, 1894.

HELLMAN, Lillian (playwright); New Orleans, La., June 20, 1905.

HEMINGWAY, Ernest (novelist); Oak Park, Ill., July 21, 1898.

HERSEY, John R. (novelist); Tientsin, China, June 17, 1914.

HESSE, Hermann (novelist); Calw, Ger., July 2, 1877.

HILLYER, Robert S. (poet); East Orange, N. J., June 3, 1895.

HILTON, James (novelist); Leigh, Eng., Sept. 9, 1900.

HOBSON, Laura Z. (Laura K. Zametkin) (novelist); New York City.

HOOK, Sidney (philosopher); New York City, Dec. 20, 1902.

HOUSMAN, Laurence (playwright, novelist); Bromsgrove, Eng., July 18, 1865.

HUGHES, Langston (poet); Joplin, Mo., Feb. 1, 1902.

HURST, Fannie (novelist); Hamilton, Ohio, Oct. 18, 1889.

HUXLEY, Aldous (novelist, essayist); Godalming, Eng., July 26, 1894.

ISHERWOOD, Christopher (novelist); Disley, Cheshire, Eng., Aug. 26, 1904.

JACKSON, Charles (novelist); Summit, N. J., Apr. 6, 1903.

JAMESON, Margaret Storm (novelist); Whitby, Eng., 1897.

JEFFERS, Robinson (poet); Pittsburgh, Pa., Jan. 10, 1887.

JOHNSON, Josephine Winslow (novelist); Kirkwood, Mo., June 20, 1910.

JONES, James (novelist); Robinson, Ill., Nov. 6, 1921.

JOSEPHSON, Matthew (critic, biographer); Brooklyn, N. Y., Feb. 15, 1899.

KANIN, Garson (playwright, director); Rochester, N. Y., Nov. 24, 1912.

KANTOR, MacKinlay (novelist); Webster City, Iowa, Feb. 4, 1904.

KAUFMAN, George S. (playwright); Pittsburgh, Pa., Nov. 16, 1889.

KAZIN, Alfred (critic); Brooklyn, N. Y., June 5, 1915.

KELLAND, Clarence Budington (novelist); Portland, Mich., July 11, 1881.

KENNEDY, Margaret (novelist); London, Eng., 1896.

KEYES, Frances Parkinson (novelist); Univ. of Va., July 21, 1885.

KIERAN, John (editor); New York City, Aug. 2, 1892.

KINGSLEY, Sidney (Sidney Kirschner) (playwright); N. Y. C., Oct. 18, 1906.

KOESTLER, Arthur (novelist); Budapest, Hung., Sept. 5, 1905.

KOMROFF, Manuel (novelist); New York City, Sept. 7, 1890.

KREYMBORG, Alfred (poet); New York City, Dec. 10, 1883.

LA FARGE, Christopher (poet, novelist) New York City, Dec. 10, 1897.

LA FARGE, Oliver (novelist); New York City, Dec. 19, 1901.

LAWSON, John Howard (playwright); New York City, Sept. 25, 1895.

LEAF, Munro (children's writer); Hamilton, Md., Dec. 4, 1905.

LEHMANN, Rosamond (novelist); London, Eng., 1903.

LERNER, Max (social writer); Minsk, Rus., Dec. 20, 1902.

LEWISOHN, Ludwig (novelist, critic); Berlin, Ger., May 30, 1883.

LIN Yutang (philosopher); Changchow, China, Oct. 10, 1895.

LINDSAY, Howard (playwright); Waterford, N. Y., Mar. 29, 1889.

LLEWELLYN, Richard (novelist); St. David's, Wales.

LOOS, Anita (novelist); Sisson, Calif., Apr. 26, 1893.

LOWELL, Robert (Traill Spence, Jr.) (poet); Boston, Mass., Mar. 1, 1917.

MacARTHUR, Charles (playwright); Scranton, Pa., Nov. 5, 1895.

McCULLERS, Carson (novelist, playwright); Columbus, Ga., Feb. 19, 1917.

MacLEISH, Archibald (poet); Glencoe, Ill., May 7, 1892.

MAILER, Norman (novelist); Long Branch, N. J., Jan. 31, 1923.

MALRAUX, André (novelist); Paris, Fr., Nov. 3, 1895.

MANN, Thomas (novelist); Lübeck, Ger., June 6, 1875.

MARITAIN, Jacques (philosopher); Paris, Fr., Nov. 18, 1882.

MARQUAND, John P. (novelist); Wilmington, Del., Nov. 10, 1893.

MARSH, Ngaio (novelist); Christchurch, N. Z., Apr. 23, 1899.

MARTIN DU GARD, Roger (novelist); Neuilly-sur-Seine, Fr., 1881.

MASEFIELD, John (poet); Ledbury, Eng., June 1, 1878.

MASON, F. van Wyck (novelist); Boston, Mass., Nov. 11, 1901.

MAUGHAM, William Somerset (novelist); Paris, Fr., Jan. 25, 1874.

MAUROIS, André (Émile Herzog) (novelist); Elbeuf, Fr., July 26, 1885.

MENCKEN, Henry L. (critic); Baltimore, Md., Sept. 12, 1880.

MERTON, Thomas (poet, religious writer); Pradęs, Fr., Jan. 31, 1915.

MICHENER, James A. (novelist); New York City, Feb. 3, 1907.

MILLER, Arthur (playwright); N. Y. C., 1915.

MILNE, Alan A. (novelist, playwright); London, Eng., Jan. 18, 1882.

MISTRAL, Gabriela (Lucila Godoy Alcayaga) (poet); Vicuña, Chile, Apr. 7, 1889.

MOLNAR, Ferenc (playwright); Budapest, Hung., Jan. 12, 1878.

MORGAN, Charles (novelist); Kent, Eng., Jan. 22, 1894.

MORLEY, Christopher (novelist); Haverford, Pa., May 5, 1890.

MOTLEY, Willard (novelist); Chicago, Ill., July 14, 1912.

NASH, Ogden (poet, humorist); Rye, N. Y., Aug. 19, 1902.

NATHAN, Robert (novelist); New York City, Jan. 2, 1894.

NEVINS, Allan (historian); Camp Point, Ill., May 20, 1890.

NEXÖ, Martin Andersen (novelist); Copenhagen, Den., June 26, 1869.

NORRIS, Kathleen (novelist); San Francisco, Calif., July 16, 1880.

NOYES, Alfred (poet); Wolverhampton, Eng., Sept. 16, 1880.

O'CASEY, Sean (playwright); Dublin, Ire., 1881.

ODETS, Clifford (playwright); Philadelphia, Pa., July 18, 1906.

O'FAOLAIN, Seán (story writer); Cork, Ire., Feb. 22, 1900.

O'FLAHERTY, Liam (novelist); Aran Is., Ire., 1897.

O'HARA, John (story writer, novelist); Pottsville, Pa., Jan. 31, 1905.

O'NEILL, Eugene (playwright); New York City, Oct. 16, 1888.

ORTEGA Y GASSET, José (social writer); Madrid, Sp., May 9, 1883.

OURSLER, Fulton (novelist); Baltimore, Md., Jan. 22, 1893.

PARKER, Dorothy (poet, story writer); West End, N. J., Aug. 22, 1893.

PAUL, Elliot (novelist); Malden, Mass., Feb. 13, 1891.

PEATTIE, Donald Culross (nature writer); Chicago, Ill., June 21, 1898.

PERELMAN, Sidney J. (humorist, playwright); Brooklyn, N. Y., Feb. 1, 1904.

PORTER, Katherine Anne (story writer); Indian Creek, Tex., May 15, 1894.

POUND, Ezra (poet); Hailey, Idaho, Oct. 30, 1885.

PRATT, Fletcher (historian); Buffalo, N. Y., Apr. 25, 1897.

PRIESTLEY, John B. (novelist, playwright); Bradford, Eng., Sept. 13, 1894.

PROKOSCH, Frederic (novelist); Madison, Wis., May 17, 1908.

RANSOM, John Crowe (poet); Pulaski, Tenn., Apr. 30, 1888.

RATTIGAN, Terence (playwright); London, Eng., June 10, 1911.

RAWLINGS, Marjorie Kinnan (novelist); Washington, D. C., Aug. 8, 1896.

REMARQUE, Erich Maria (novelist); Osnabrück, Ger., June 22, 1898.

RICE, Elmer (Elmer Reizenstein) (playwright); N. Y. C., Sept. 28, 1892.

RICHARDS, Ivor Armstrong (critic); Sandbach, Eng., Feb. 26, 1893.

RICHTER, Conrad (novelist); Pine Grove, Pa., Oct. 13, 1890.

RINEHART, Mary Roberts (novelist); Pittsburgh, Pa.

ROBERTS, Kenneth (novelist); Kennebunk, Maine, Dec. 8, 1885.

ROBINSON, Henry Morton (novelist); Boston, Mass., Sept. 7, 1898.

ROMAINS, Jules (Louis Farigoule) (novelist); Saint-Julien Chapteuil, Fr., Aug. 26, 1885.

ROSS, Nancy Wilson (novelist); Olympia, Wash.

RUSSELL, Bertrand (philosopher); Trelleck, Eng., May 18, 1872.

SACKVILLE-WEST, Victoria (poet, novelist); Sevenoaks, Eng., Mar. 9, 1892.

SANDBURG, Carl (poet, biographer); Galesburg, Ill., Jan. 6, 1878.

SANTAYANA, George (philosopher, poet); Madrid, Sp., Dec. 16, 1863.

SAROYAN, William (story writer, playwright); Fresno, Calif., Aug. 31, 1908.

SARTRE, Jean-Paul (philosopher); Paris, Fr., June 21, 1905.

SASSOON, Siegfried (poet); Matfield, Eng., Sept. 8, 1886.

SCHLESINGER, Arthur M., Jr. (historian); Columbus, Ohio, Oct. 15, 1917.

SCHLESINGER, Arthur M., Sr. (historian); Xenia, Ohio, Feb. 27, 1888.

SCHULBERG, Budd (novelist); New York City, Mar. 27, 1914.

SHAPIRO, Karl (poet); Baltimore, Md., Nov. 10, 1913.

SHAW, Irwin (playwright, novelist); New York City, Feb. 27, 1913.

SHEEAN, Vincent (novelist, essayist); Pana, Ill., Dec. 5, 1899.

SHELLABARGER, Samuel (novelist); Washington, D. C., May 18, 1888.

SHERRIFF, Robert (playwright); Kingston-on-Thames, Eng., June 6, 1896.

SHERWOOD, Robert E. (playwright); New Rochelle, N. Y., Apr. 4, 1896.

SHOLOKHOV, Mikhail (novelist); Veshenskaya, Rus., 1905.

SHULMAN, Max (humorist); St. Paul, Minn., Mar. 14, 1919.

SILLANPÄÄ, Frans Eemil (novelist); Hämeenkyrö, Fin., Sept. 16, 1888.

SILONE, Ignazio (Secondo Tranquilli) (novelist); Pescina dei Marsi, It., May 1, 1900.

SIMENON, Georges (Georges Sim) (novelist); Liéges, Belg., Feb. 13, 1903.

SINCLAIR, Upton (novelist); Baltimore, Md., Sept. 20, 1878.

SITWELL, Edith (poet); Scarborough, Eng., 1887.

SITWELL, Sir Osbert (poet, satirist); London, Eng., Dec. 6, 1892.

SITWELL, Sacheverell (poet, art critic); Scarborough, Eng., 1897.

SMITH, Betty (novelist); Brooklyn, N. Y., Dec. 15, 1904.

SMITH, Lillian (novelist); Jasper, Fla., 1897.

SPENDER, Stephen (poet); nr. London, Eng., Feb. 28, 1909.

STALLINGS, Laurence (novelist, playwright); Macon, Ga., Nov. 25, 1894.

STEINBECK, John (novelist); Salinas, Calif., Feb. 27, 1902.

STEVENS, Wallace (poet); Reading, Pa., Oct. 2, 1879.

STONE, Irving (biographer); San Francisco, Calif., July 14, 1903.

STONG, Philip (novelist); Keosauqua, Iowa, Jan. 27, 1899.

STREET, James (novelist); Lumberton, Miss., Oct. 15, 1903.

STREETER, Edward (novelist); New York City, Aug. 1, 1891.

STRIBLING, Thomas S. (novelist); Clifton, Tenn., Mar. 4, 1881.

STRUTHER, Jan (Joyce Anstruther) (novelist); London, Eng., June 6, 1901.

STUART, Jesse (poet, novelist); W-Hollow, Ky., Aug. 8, 1907.

SUCKOW, Ruth (novelist); Hawarden, Iowa, Aug. 6, 1892.

SULLIVAN, Mark (political writer); Avondale, Pa., Sept. 10, 1874.

TATE, Allen (poet); Winchester, Ky., Nov. 19, 1899.

THOMAS, Dylan (poet); Carmarthenshire, Wales, 1914.

THURBER, James (humorist); Columbus, Ohio, Dec. 8, 1894.

TOYNBEE, Arnold J. (historian); London, Eng., Apr. 14, 1889.

UNTERMEYER, Louis (poet, anthologist); New York City, Oct. 1, 1885.

VAN DOREN, Mark (poet, critic); Hope, Ill., June 13, 1894.

VAN DRUTEN, John (playwright); London, Eng., June 1, 1901.

VIDAL, Gore (novelist); West Point, N. Y., Oct. 3, 1925.

WAKEMAN, Frederic (novelist); Scranton, Kans., Dec. 26, 1909.

WARNER, Sylvia Townsend (novelist, poet); Harrow-on-the-Hill, Eng., 1893.

WARREN, Robert Penn (novelist); Guthrie, Ky., Apr. 24, 1905.

WAUGH, Alexander (novelist); London, Eng., July 8, 1898.

WAUGH, Evelyn (novelist); London, 1903.

WEIDMAN, Jerome (novelist); New York City, Apr. 4, 1913.

WELTY, Eudora (novelist); Jackson, Miss., Apr. 13, 1909.

WESCOTT, Glenway (novelist); Kewaskum, Wis., Apr. 11, 1901.

WEST, Rebecca (Cicily Fairfield) (novelist); Edinburgh, Scot., Dec. 25, 1892.

WHITE, Elwyn B. (poet, humorist); Mt. Vernon, N. Y., July 11, 1899.

WILDER, Thornton (novelist, playwright); Madison, Wis., Apr. 17, 1897.

WILLIAMS, Ben Ames (novelist); Macon, Miss., Mar. 7, 1889.

WILLIAMS, Emlyn (playwright); Mostyn, Wales, Nov. 26, 1905.

WILLIAMS, Tennessee (Thomas L.) (playwright); Columbus, Miss., Mar. 26, 1914.

WILLIAMS, Wm. Carlos (novelist, poet); Rutherford, N. J., Sept. 17, 1883.

WILSON, Edmund (critic, novelist); Red Bank, N. J., May 8, 1895.

WILSON, Margaret (novelist); Traer, Iowa, Jan. 16, 1882.

WINSOR, Kathleen (novelist); Olivia, Minn., Oct. 16, 1919.

WINWAR, Frances (Francesca Vinciguerra) (novelist); Taormina, Sicily, May 3, 1900.

WRIGHT, Richard (novelist); near Natchez, Miss., Sept. 4, 1908.

WYLIE, Philip (novelist); Beverly, Mass., May 12, 1902.

YERBY, Frank (novelist); Augusta, Ga., Sept. 5, 1916.

ZWEIG, Arnold (novelist); Grosz-Glogau, Silesia, Nov. 10, 1887.

Science

ABBOT, Charles G. (astrophysicist); Wilton, N. H., May 31, 1872.

ALEXANDERSON, Ernst F. W. (engineer, inventor); Uppsala, Swed., Jan. 25, 1878.

ANDERSON, Carl D. (physicist); New York City, Sept. 3, 1905.

ANDREWS, Roy Chapman (zoologist, explorer); Beloit, Wis., Jan. 26, 1884.

APPLETON, Sir Edward V. (physicist); England, Sept. 6, 1892.

ARMSTRONG, Edwin H. (engineer); New York City, Dec. 18, 1890.

BAADE, Walter (astronomer); Schroetinghausen, Ger., Mar. 24, 1893.

BEEBE, William (zoologist); Brooklyn, N. Y., July 29, 1877.

BLACKETT, Patrick M. S. (physicist); Nov. 18, 1897.

BLODGETT, Katharine B. (physicist); Schenectady, N. Y., Jan. 10, 1898.

BOHR, Niels (physicist); Copenhagen, Den., Oct. 7, 1885.

BRAGG, Sir William L. (physicist); Adelaide, Austr., Mar. 31, 1890.

BRIDGMAN, Percy W. (physicist); Cambridge, Mass., Apr. 21, 1882.

BUSH, Vannevar (engineer); Everett, Mass., Mar. 11, 1890.

BYRD, Richard E. (explorer); Winchester, Va., Oct. 25, 1888.

CHADWICK, Sir James (physicist); England, Oct. 29, 1891.

COLE, Rufus (physician); Rowsburg, Ohio, Apr. 30, 1872.

COMPTON, Arthur H. (physicist); Wooster, Ohio, Sept. 10, 1892.

COMPTON, Karl T. (physicist); Wooster, Ohio, Sept. 14, 1887.

CONDON, Edward U. (physicist); Alamagordo, N. Mex., Mar. 2, 1902.

COOLIDGE, William D. (physical chemist); Hudson, Mass., Oct. 23, 1873.

CORI, Carl F. (biochemist); Prague, Czech., Dec. 15, 1896.

CORI, Gerty T. (biochemist); Prague, Czech., Aug. 15, 1896.

DAM, Henrik (biochemist); Copenhagen, Den., Feb. 21, 1895.

DAVISSON, Clinton J. (physicist); Bloomington, Ill., Oct. 22, 1881.

DE BROGLIE, Louis Victor (physicist); Dieppe, Fr., Aug. 15, 1892.

DE KRUIF, Paul (science writer); Zeeland, Mich., Mar. 2, 1890.

DIRAC, Paul A. M. (physicist); Bristol, Eng., Aug. 8, 1902.

DOISY, Edward A. (biochemist); Hume, Ill., Nov. 13, 1893.

DUNNING, John R. (physicist); Shelby, Nebr., Sept. 24, 1907.

EINSTEIN, Albert (physicist); Ulm, Ger., Mar. 14, 1879.

ERLANGER, Joseph (physiologist); San Francisco, Calif., Jan. 5, 1874.

EVANS, Herbert M. (anatomist); Modesto, Calif., Sept. 23, 1882.

FERMI, Enrico (physicist); Rome, It., Sept. 29, 1901.

FLEMING, Sir Alexander (bacteriologist); Lochfield, Eng., 1881.

HAHN, Otto (physical chemist); Frankfurt am Main, Ger., Mar. 8, 1879.

HALDANE, John B. S. (geneticist); England, Nov. 5, 1892.

HEISENBERG, Werner (physicist); Germany, Dec. 5, 1901.

HEISER, Victor G. (hygienist); Johnstown, Pa., Feb. 5, 1873.

HOGBEN, Lancelot (biologist); Southsea, Eng., Dec. 9, 1895.

HOOTON, Earnest A. (anthropologist); Clemansville, Wis., Nov. 20, 1887.

HORNEY, Karen (psychiatrist); Hamburg, Ger., Sept. 16, 1885.

HOUSSAY, Bernardo A. (physiologist); Buenos Aires, Arg., Apr. 10, 1887.

HUBBARD, Father Bernard R. (geologist, explorer); San Francisco, Nov. 24, 1888.

HUBBLE, Edwin P. (astronomer); Marshfield, Mo., Nov. 20, 1889.

HUNTINGTON, Ellsworth (geographer); Galesburg, Ill., Sept. 16, 1876.

HUXLEY, Julian S. (biologist); England, June 22, 1887.

JOLIOT-CURIE, Frédéric (physicist); Paris, Fr., Mar. 19, 1900.

JOLIOT-CURIE, Irène (physicist); France, Sept. 12, 1897.

JUNG, Carl G. (psychiatrist); Basel, Switz., July 26, 1875.

KAPITZA, Peter L. (physicist); Kronstadt, Rus., July 8, 1894.

KENNY, "Sister" Elizabeth (nurse); Warrialdo, Austr., Sept. 20, 1886.

KETTERING, Charles F. (engineer); b. nr. Loudonville, Ohio, Aug. 29, 1876.

KINSEY, Alfred C. (zoologist, sexologist); Hoboken, N. J., June 23, 1894.

LANGMUIR, Irving (chemist); Brooklyn, N. Y., Jan. 31, 1881.

LAWRENCE, Ernest O. (physicist); Canton, S. Dak., Aug. 8, 1901.

LYNCH, Rev. J. Joseph (seismologist); London, Eng., Dec. 6, 1894.

MacNIDER, William (pharmacologist); Chapel Hill, N. C., June 25, 1881.

MAYO, Charles W. (surgeon); Rochester, Minn., July 28, 1898.

MEITNER, Lise (physicist); Vienna, Aus., Nov. 7, 1878.

MENNINGER, William C. (psychiatrist); Topeka, Kans., Oct. 15, 1899.

MILLIKAN, Robert A. (physicist); Morrison, Ill., Mar. 22, 1868.

MOULTON, Forest R. (astronomer); b. nr. Le Roy, Mich., Apr. 29, 1872.

MUELLER, Paul (chemist); Olten, Switz., Jan. 12, 1899.

MURPHY, William P. (physician); Stoughton, Wis., Feb. 6, 1892.

NORDEN, Carl L. (inventor); Semarang, Java, Apr. 23, 1880.

OPPENHEIMER, J. Robert (physicist); New York City, Apr. 22, 1904.

PAINTER, Theophilus S. (zoologist); Salem, Va., Aug. 22, 1889.

PARRAN, Thomas (surgeon); St. Leonard, Md., Sept. 28, 1892.

PICCARD, Auguste (physicist); Basel, Switz., Jan. 28, 1884.

PICCARD, Jean Félix (aero. eng.); Basel, Switz., Jan. 28, 1884.

RABI, Isidor I. (physicist); Raymanou, Aus., July 29, 1898.

ROBINSON, Sir Robert (chemist); England, Sept. 13, 1886.

RUSSELL, Henry N. (astronomer); Oyster Bay, N. Y., Oct. 25, 1877.

SABIN, Florence R. (anatomist); Central City, Colo., Nov. 9, 1871.

SCHWEITZER, Albert (physician); Kaysersburg, Alsace, Jan. 14, 1875.

SEABORG, Glenn T. (nuclear chemist); Ishpeming, Mich., Apr. 19, 1912.

SHAPLEY, Harlow (astronomer); Nashville, Mo., Nov. 2, 1885.

SIEGBAHN, Karl M. G. (physicist); Örebro, Swed., Dec. 3, 1886.

SIKORSKY, Igor I. (aircraft designer); Kiev, Rus., May 25, 1889.

SMYTH, Henry DeWolf (physicist); Clinton, N. Y., May 1, 1898.

STEENBOCK, Harry (biochemist); Charlestown, Wis., Aug. 16, 1886.

STEFANSSON, Vilhjalmur (explorer); Arnes, Can., Nov. 3, 1879.

TISELIUS, Arne (biochemist); Stockholm, Swed., Aug. 10, 1902.

UREY, Harold C. (chemist); Walkerton, Ind., Apr. 29, 1893.

WAKSMAN, Selman A. (microbiologist); Priluki, Rus., July 2, 1888.

WHIPPLE, George H. (pathologist); Ashland, N. H., Aug. 28, 1878.

ZWORYKIN, Vladimir K. (physicist); Mourom, Rus., July 30, 1889.

Public Affairs

ACHESON, Dean (U. S. Sec. State); Middletown, Conn., Apr. 11, 1893.

ADENAUER, Konrad (Chanc., W. Ger.); Cologne, Ger., Jan. 5, 1876.

ALEMÁN, Miguel (Pres., Mex.); Sayula, Mex., Sept. 29, 1903.

ATTLEE, Clement R. (Pr. Min., Brit.); London, Eng., Jan. 3, 1883.

AURIOL, Vincent (Pres., Fr.); Revel, Fr., Aug. 27, 1884.

AUSTIN, Warren R. (U. S. Perm. Rep. to U. N.); Highgate, Vt., Nov. 12, 1877.

BARKLEY, Alben W. (Vice Pres., U. S.); Graves Co., Ky., Nov. 24, 1877.

BARUCH, Bernard (financier); Camden, S. C., Aug. 19, 1870.

BAUDOUIN (King, Belg.); Palace of Laeken, Belg., Sept. 7, 1930.

BEN-GURION, David (Prem., Israel); Płońsk, Pol., Oct. 16, 1886.

BEVAN, Aneurin (Labour ldr., Brit.); Tredegar, Eng., Nov., 1897.

BIERUT, Boleslaw (Boleslaw Krasnodebski) (Pres., Pol.); Lublin, Pol., Apr. 19, 1892.

BJÖRNSSON, Sveinn (Pres., Ice.); Iceland, Feb. 27, 1881.

BLACK, Hugo L. (Just., U. S. Sup. Ct.); Harlan, Ala., Feb. 27, 1886.

BRADLEY, Omar N. (Chmn., Jnt. Chfs. of Staff, U. S.); Clark, Mo., Feb. 12, 1893.

BURTON, Harold H. (Just., U. S. Sup. Ct.); Jamaica Plain, Mass., June 22, 1888.

CHAPMAN, Oscar L. (U. S. Sec. Int.); Omega, Va., Oct. 22, 1896.

CHIANG Kai-shek (Pres., Nationalist China); Feng-hwa, China, Oct. 31, 1887.

CHOU En-lai (Prem., Communist China); Huaiyin, China, 1898.

CHURCHILL, Winston (former Pr. Min., Brit.); Oxfordshire, Eng., Nov. 30, 1874.

CLARK, Thomas C. (Just., U. S. Sup. Ct.); Dallas, Tex., Sept. 23, 1899.

CONNALLY, Thomas T. (U. S. Sen., Tex.); McLennan Co., Tex., Aug. 19, 1877.

DE GAULLE, Charles (wartime ldr., Fr.); Lille, Fr., Nov. 22, 1890.

DE VALERA, Éamon (Pr. Min., Ire.); New York City, Oct. 14, 1882.

DEWEY, Thomas E. (Gov., N. Y.); Owosso, Mich., Mar. 24, 1902.

DiSALLE, Michael V. (Dir. of Price Stabil., U. S.); New York City, Jan. 6, 1908.

DOUGLAS, William O. (Just., U. S. Sup. Ct.); Maine, Minn., Oct. 16, 1898.

DULLES, John Foster (Amb.-at-Large, U. S.); Wash., D. C., Feb. 25, 1888.

EINAUDI, Luigi (Pres., It.); Carrù, It., Mar. 24, 1874.

EISENHOWER, Dwight D. (Supreme Allied Comm. in Europe); Denison, Tex., Oct. 14, 1890.

FAROUK I (King, Egy.); Cairo, Egy., Feb. 11, 1920.

FRANCO, Francisco (Ch. of State, Sp.); El Ferrol, Sp., Dec. 4, 1892.

FRANKFURTER, Felix (Just., U. S. Sup. Ct.); Vienna, Aus., Nov. 15, 1882.

FRANKS, Sir Oliver S. (Brit. Amb. to U. S.); England, Feb. 16, 1905.

FREDERICK IX (King, Den.); near Copenhagen, Den., Mar. 11, 1899.

GABRIELSON, Guy G. (Chmn., Rep. Natl. Comm.); Sioux Rapids, Iowa, May 22, 1891.

GASPERI, Alcide de (Prem., It.); Pieve Tesino, Aus.-Hung., Apr. 3, 1881.

GEORGE VI (King, Eng.); Sandringham, Eng., Dec. 14, 1895.

GIFFORD, Walter S. (U. S. Amb. to Brit.); Salem, Mass., Jan. 10, 1885.

GOTTWALD, Klement (Pres., Czech.); Dědice, Moravia, Nov. 23, 1896.

GREEN, William (Pres., AFL, U. S.); Coshocton, Ohio, Mar. 3, 1873.

GROMYKO, Andrei A. (Dep. For. Min., U.S.S.R.); Starye Gromyki, Rus., July 5, 1909.

GROTEWOHL, Otto (Prem., E. Ger.); Brunswick, Ger., Mar. 11, 1894.

GUSTAVUS VI (King, Swed.); Stockholm, Swed., Nov. 11, 1882.

HAAKON VII (King, Nor.); Denmark, Aug. 3, 1872.

HAILE SELASSIE I (Emp., Eth.); Ethiopia, July 17, 1891.

HARRIMAN, W. Averell (Spec. Asst. to U. S. Pres.); Nov. 15, 1891.

HERSHEY, Maj. Gen. Lewis B. (Sel. Serv. Dir., U. S.); Steuben Co., Ind., Sept. 12, 1893.

HEUSS, Theodor (Pres., W. Ger.); Brackenheim, Ger., Jan. 31, 1884.

HIROHITO (Emp., Jap.); Japan, Apr. 29, 1901.

HOOVER, Herbert C. (former Pres., U. S.); West Branch, Iowa, Aug. 10, 1874.

HOOVER, J. Edgar (Dir., FBI, U. S.); Washington, D. C., Jan. 1, 1895.

IBN SA'UD (King, Saudi Arabia); Riyadh, Arab., c.1880.

JACKSON, Robert H. (Just., U. S. Sup. Ct.); Spring Creek, Pa., Feb. 13, 1892.

JEBB, Sir Gladwyn (Brit. Perm. Rep. to U. N.); England, Apr. 25, 1900.

JESSUP, Philip C. (Amb.-at-large, U. S.); New York City, Jan. 5, 1897.

JULIANA (Queen, Neth.); The Hague, Neth., Apr. 30, 1909.

KEFAUVER, Estes (U. S. Sen., Tenn.); nr. Madisonville, Tenn., July 26, 1903.

KIRK, Adm. Alan G. (U. S. Amb. to U.S.S.R.); Philadelphia, Pa., Oct. 30, 1888.

LEOPOLD III (Former King, Belg.); Nov. 3, 1901.

LEWIS, John L. (Pres., UMW, U. S.); Lucas, Iowa, Feb. 12, 1880.

LIE, Trygve (Sec. Gen., U. N.); Oslo, Nor., July 16, 1896.

LILIENTHAL, David E. (Former Chmn., Atomic Energy Comm.); Morton, Ill., July 8, 1899.

LOVETT, Robert A. (U. S. Sec. of Def.); Huntsville, Tex., Sept. 14, 1895.

MacARTHUR, Gen. Douglas (Former Comm., U. N. Forces in Korea); Little Rock barracks, Ark., Jan. 26, 1880.

McGRATH, J. Howard (U. S. Atty. Gen.); Woonsocket, R. I., Nov. 28, 1903.

MALIK, Yakov A. (Sov. Perm. Rep. to U. N.); Ukraine, 1906.

MAO Tse-tung (Chmn., People's Counc., Communist China); Shao Shan, China, 1893.

MARSHALL, George C. (Former U. S. Sec. Def.); Uniontown, Pa., Dec. 31, 1880.

MARTIN, Joseph W., Jr. (Min. Ldr., House, U. S.); North Attleboro, Mass., Nov. 3, 1884.

MENZIES, Robert G. (Pr. Min., Austr.); Jeparit, Austr., Dec. 20, 1894.

MINTON, Sherman (Just., U. S. Sup. Ct.); Georgetown, Ind., Oct. 20, 1890.

MOLOTOV, Vyacheslav M. (V. M. Skryabin) (Dep. Prem., U.S.S.R.); Kukarka, Rus., Mar. 9, 1890.

MORRISON, Herbert S. (For. Sec., Brit.); London, Eng., Jan. 3, 1888.

MOSSADEGH, Mohammed (Prem., Iran); Teheran, Persia, 1880?.

MURRAY, Philip (Pres., CIO, U. S.); Blantyre, Scot., May 25, 1886.

NAZIMUDDIN, Khwaja (Pr. Min., Pakistan); Dacca, Bengal, July 19, 1894.

NEHRU, Jawaharlal (Pr. Min., India); Allahabad, India, Nov. 14, 1889.

O'KELLY, Séan (Pres., Ire.); Dublin, Ire., Aug. 25, 1882.

PAASIKIVI, Juho K. (Pres., Fin.); Tampere, Fin., Nov. 27, 1870.

PANYUSHKIN, Alexander S. (Sov. Amb. to U. S.); Kuibyshev, Rus., June, 1905.

PAUKER, Ana (Ana Rabinsohn) (For. Min., Rum.); Codaeşti, Moldavia, 1893.

PAUL I (King, Gr.); Athens, Gr., Dec. 14, 1901.

PEARSON, Lester B. (Ext. Aff. Sec., Can.); Toronto, Can., Apr. 23, 1897.

PERÓN, Juan D. (Pres., Arg.); near Lobos, Arg., Oct. 8, 1895.

PIECK, Wilhelm (Pres., E. Ger.); Guben, Ger., Jan. 3, 1876.

PIUS XII (Eugenio Pacelli) (Pope); Rome, It., Mar. 2, 1876.

QUIRINO, Elpidio (Pres., Phil.); Vigan, Luzon, Phil., Nov. 16, 1890.

RAYBURN, Sam (Spkr., House, U. S.); Roane Co., Tenn., Jan. 6, 1882.

REED, Stanley F. (Just., U. S. Sup. Ct.); Mason Co., Ky., Dec. 31, 1884.

REUTHER, Walter P. (Pres., UAW, U. S.); Wheeling, W. Va., Sept. 1, 1907.

RHEE, Syngman (Pres., South Kor.); Whanghai Prov., Kor., Apr. 26, 1875.

ROOSEVELT, Eleanor (U. N. Del., U. S.); New York City, Oct. 11, 1884.

ST. LAURENT, Louis Stephen (Pr. Min., Can.); Compton, Que., Can., Feb. 1, 1882.

SALAZAR, António de Oliveira (Prem., Port.); Santa Comba, Port., 1889.

SCHUMAN, Robert (For. Min., Fr.); Luxemburg, Luxem., June 29, 1886.

SCHVERNIK, Nikolai M. (Chmn., Presidium of Sup. Counc., U.S.S.R.); Russia, 1888.

SHARETT, Moshe (Moshe Shertok) (For. Min., Israel); Kherson, Ukraine, 1894.

SHINWELL, Emanuel (Min. of Defense, Brit.); London, Eng., Oct. 18, 1884.

SNYDER, John W. (U. S. Sec. of Treas.); Jonesboro, Ark., June 21, 1896.

SPAAK, Paul-Henri (Chmn. of Assem., Counc. of Eur.); Brussels, Belg., Jan. 25, 1899.

STALIN, Joseph V. (Iosif V. Dzhugashvili) (Prem., U.S.S.R.); Gori, Georgia, Transcaucasia, Dec. 21, 1879.

STASSEN, Harold E. (Pres., U. of Pa.); West St. Paul, Minn., Apr. 13, 1907.

TAFT, Robert A. (U. S. Sen., Ohio); Cincinnati, Ohio, Sept. 8, 1889.

THOMAS, Norman M. (Socialist ldr., U. S.); Marion, Ohio, Nov. 20, 1884.

THOREZ, Maurice (Communist ldr., Fr.); Noyelles-Godault, Fr., Apr. 28, 1900.

TITO (Josip Brozovich or Broz) (Prem., Yugos.); Kumroveč, Croatia, May 25, 1892.

TOGLIATTI, Palmiro (Communist ldr., It.); Genoa, It., Mar. 26, 1893.

TRUJILLO Y MOLINA, Rafael L. (Pres., Dom. Rep.); San Cristóbal, Dom. Rep., Oct. 24, 1891.

TRUMAN, Harry S. (Pres., U. S.); Lamar, Mo., May 8, 1884.

VARGAS, Getulio D. (Pres., Braz.); São Borja, Braz., Apr. 19, 1882.

VINSON, Frederick M. (Ch. Just., U. S. Sup. Ct.); Louisa, Ky., Jan. 22, 1890.

VISHINSKY, Andrei Y. (For. Min., U.S.S.R.); Odessa, Rus., 1883.

WALLACE, Henry A. (former Vice Pres., U. S.); Adair Co., Iowa, Oct. 7, 1888.

WEBB, James E. (U. S. Undersec. State); Granville Co., N. C., Oct. 7, 1906.

WEIZMANN, Chaim (Pres., Israel); near Pińsk, Rus., Nov. 27, 1874.

YOSHIDA, Shigeru (Prem., Jap.); Tokyo, Jap., Sept. 22, 1878.

Sports

BASEBALL

BERRA, Lawrence (Yogi), St. Louis, Mo., May 12, 1925.

BLACKWELL, Ewell, Jr., Fresno, Calif., Oct. 23, 1922.

BOUDREAU, Lou, Harvey, Ill., July 17, 1917.

CAMPANELLA, Roy, Philadelphia, Nov. 19, 1921.

CAVARRETTA, Phil, Chicago, July 19, 1917.

COAKLEY, Andy, Providence, Nov. 20, 1882.

COBB, Tyrus R. (Ty), Banks County, Ga., Dec. 17, 1886.

COCHRANE, Gordon S. (Mickey), Bridgewater, Mass., Apr. 6, 1903.

CRONIN, Joe, San Francisco, Oct. 12, 1906.

DEAN, Jay Hanna (Dizzy), Lucas, Ark., Jan. 16, 1911.

DICKEY, Bill, Bastrop, La., June 6, 1907.

DI MAGGIO, Dom, San Francisco, Calif., Feb. 12, 1918.

DI MAGGIO, Joe, Martinez, Calif., Nov. 25, 1914.

DRESSEN, Charles (Chuck), Decatur, Ill., Sept. 20, 1898.

DUROCHER, Leo, West Springfield, Mass., July 27, 1906.

DYKES, Jimmie, Philadelphia, Nov. 10, 1896

EVANS, Billy, Chicago, Feb. 10, 1884.

FELLER, Bobby, Van Meter, Iowa, Nov. 3, 1918.

FRICK, Ford C., Wawaka, Ind., Dec. 19, 1894.

FRISCH, Frank F., N. Y. C., Sept. 9, 1898.

GILES, Warren, Tiskilwa, Ill., May 28, 1896.

GREENBERG, Hank, N. Y. C., Jan. 1, 1911.

GRIFFITH, Clark C., Clear Creek, Mo., Nov. 20, 1869.

GROVE, Robert M. (Lefty), Lonaconing, Md., March 6, 1900.

HARRIDGE, Will, Chicago, Oct. 16, 1886.

HARRIS, Stanley R. (Bucky), Port Jervis, N. Y., Nov. 8, 1896.

HEYDLER, John A., La Fargeville, N. Y., July 10, 1869.

HODGES, Gil, Princeton, Ind., Apr. 4, 1924.

HORNSBY, Rogers, Winters, Texas, Apr. 27, 1896.

HUBBELL, Carl, Carthage, Mo., June 22, 1903.

KELL, George, Swifton, Ark., Aug. 23, 1922.

KINER, Ralph, Santa Rita, N. M., Oct. 27, 1922.

LOPEZ, Al, Tampa, Fla., Aug. 20, 1908.

McCARTHY, Joe, Philadelphia, Pa., Apr. 21, 1887.

MACK, Connie, East Brookfield, Mass., Dec. 23, 1862.

McKECHNIE, William B., Wilkinsburg, Pa., Aug. 7, 1877.

MAGLIE, Sal, Niagara Falls, N. Y., Apr. 26, 1917.

MARION, Marty, Richburg, S. C., Dec. 1, 1917.

MEYER, Bill, Knoxville, Jan. 14, 1893.

MUSIAL, Stan, Donora, Pa., Nov. 21, 1920.

NEWHOUSER, Hal, Detroit, May 20, 1921.

O'NEILL, Steve, Minooka, Pa., July 6, 1891.

OTT, Mel, Gretna, La., Mar. 2, 1909.

RASCHI, Victor, West Springfield, Mass., Mar. 28, 1919.

REESE, Harold (Pee Wee), Ekron, Ky., July 23, 1919.

REYNOLDS, Allie, Bethany, Okla., Feb. 10, 1919.

RICHARDS, Paul, Waxahachie, Texas, Nov. 21, 1908.

RICKEY, Branch, Senecaville, Ohio, Dec. 20, 1881.
RIZZUTO, Phil, New York, Sept. 25, 1918.
ROBINSON, Jackie, Cairo, Ga., Jan. 31, 1919.
ROLFE, Robert (Red), Penacook, N. H., Oct. 17, 1908.
ROE, Elwin (Preacher), Ash Flat, Ark., Feb. 26, 1918.
SAWYER, Eddie, Westerly, R. I., Sept. 10, 1910.
SEWELL, Luke, Titus, Ala., Jan. 15, 1901.
SIMMONS, Al, Milwaukee, May 22, 1903.
SHAUGHNESSY, Frank J., Albion, Ill., April 8, 1885.
SISLER, George H., Manchester, Ohio, Mar. 24, 1893.
SOUTHWORTH, Billy, Harvard, Nebr., Mar. 9, 1893.
SPEAKER, Tris, Hubbard, Texas, Apr. 4, 1888.
STENGEL, Charles D. (Casey), Kansas City, Mo., July 30, 1891.
TAYLOR, Zack, Yulee, Fla., July 27, 1893.
TRAUTMAN, George M., Bucyrus, Ohio, Jan. 11, 1890.
TRAYNOR, Harold J. (Pie), Framingham, Mass., Nov. 11, 1899.
WAGNER, John P. (Hans), Mansfield, Pa., Feb. 24, 1874.
WEISS, George M., New Haven, Conn., June 23, 1895.
WILLIAMS, Ted, San Diego, Calif., Oct. 30, 1918.
YOUNG, Cy, Gilmore, Ohio, March 29, 1867.

BASKETBALL

ALLEN, Forrest C. (Phog), Jamesport, Mo., Nov. 18, 1885.
AUERBACH, Arnold, Brooklyn, N. Y., Sept. 20, 1917.
BARKER, Cliff, Yorktown, Ind., Jan. 15, 1921.
CANN, Howard, Bridgeport, Conn., Oct. 11, 1895.
CERVI, Al, Buffalo, N. Y., Feb. 12, 1918.
DAVIES, Bob, Harrisburg, Pa., Jan. 15, 1921.
FULKS, Joe, Birmingham, Ky., Oct. 26, 1921.
GOTTLIEB, Edward, Philadelphia, Pa., Sept. 15, 1899.
GROZA, Alex, Martins Ferry, Ohio, Oct. 7, 1926.
HARRISON, Lester, Rochester, N. Y., Aug. 20, 1904.
HOLMAN, Nat, New York, Oct. 19, 1896.
IBA, Henry P., Easton, Mo., Aug. 6, 1904.
JULIAN, Alvin, Reading, Pa., Apr. 5, 1901.
KUNDLA, John, Star Junction, Pa., July 3, 1916.
LAPCHICK, Joe, Yonkers, N. Y., April 12, 1900.
LEWIS, Grady, Boyd, Texas, March 25, 1917.
LOEFFLER, Kenneth, Beaver Falls, Pa., April 14, 1904.
McDERMOTT, Bob, Whitestone, N. Y., Jan. 7, 1916.
McGUIRE, Dick, Rockaway Beach, N. Y., Jan. 26, 1926.
MIKAN, George, Joliet, Ill., June 18, 1924.
RUPP, Adolph, Halstead, Kans., Sept. 2, 1901.

BOXING

ARMSTRONG, Henry, St. Louis, Mo., Dec. 12, 1912.
BAER, Max, Omaha, Nebr., February 11, 1909.
BRADDOCK, Jim, North Bergen, N. J., Dec. 6, 1905.
BURNS, Tommy, Hanover, Canada, June 17, 1881.
CHARLES, Ezzard, Atlanta, July 20, 1921.
DEMPSEY, Jack, Manassa, Colo., June 24, 1894.
GAVILAN, Kid, Camaguey, Cuba, Jan. 6, 1926.
GRAZIANO, Rocky, New York, N. Y., June 7, 1922.
GREENE, Abe J., Paterson, N. J., Nov. 27, 1899.
JACOBS, Mike, New York, March 10, 1880.
JEFFRIES, James J., Carroll, Ohio, Apr. 15, 1875.
LA MOTTA, Jake, New York, July 10, 1922.
LANGFORD, Sam, Weymouth, N. Ireland, Feb. 12, 1880.
LOUIS, Joe, Lexington, Ala., May 13, 1914.
MARCIANO, Rocky, Brockton, Mass., Sept. 1, 1924.
MAXIM, Joey, Cleveland, March 28, 1922.
MILLS, Freddie, Bournemouth, England, June 26, 1919.
NORRIS, Jim, Chicago, Nov. 6, 1906.
ORTIZ, Manuel, Corona, Calif., July 2, 1916.
PEP, Willie, Middletown, Conn., Nov. 20, 1922.
ROBINSON, Ray, Detroit, May 3, 1920.
SADDLER, Sandy, Boston, June 28, 1926.
SAVOLD, Lee, Marshall, Minn., March 22, 1916.
TUNNEY, Gene, New York, May 25, 1898.
TURPIN, Randy, Leamington Spa, England, June 7, 1928.
WALCOTT, Joe, Merchantville, N. J., Jan. 31, 1914.

WALKER, Mickey, Elizabeth, N. J., July 13, 1901.

WILLARD, Jess, Pottawatomie County, Kans., Dec. 29, 1883.

WILLIAMS, Ike, Brunswick, Ga., Aug. 2, 1923.

FOOTBALL

BALL, Herman, Elkins, W. Va., May 9, 1910.

BAUGH, Sammy, Temple, Tex., Mar. 17, 1914.

BELL, Bert, Philadelphia, Pa., Feb. 25, 1894.

BIBLE, Dana X., Jefferson City, Tenn., Oct. 8, 1891.

BIERMAN, Bernard W., Springfield, Minn., Mar. 11, 1894.

BLAIK, Earl H., Detroit, Feb. 15, 1897.

BROWN, Paul E., Norwalk, Ohio, Sept. 7, 1908.

CALDWELL, Charles W., Jr., Bristol, Va.-Tenn., Aug. 2, 1902.

CRISLER, Herbert O. (Fritz), Earlville, Ill., Jan. 12, 1899.

CROWE, Clem, Lafayette, Ind., Oct. 18, 1913.

DAWSON, Lowell (Red), Minneapolis, Minn., Dec. 20, 1906.

DORAIS, Gus, Chippewa Falls, Wis., July 2, 1891.

DUDLEY, Bill, Bluefield, Va., Dec. 24, 1921.

EDWARDS, Albert G. (Turk), Clarkston, Wash., Sept. 28, 1907.

FLAHERTY, Ray, Spokane, Wash., Sept. 1, 1904.

GRAHAM, Otto, Waukegan, Ill., Dec. 6, 1921.

GRANGE, Harold (Red), Wheaton, Ill., June 13, 1904.

HALAS, George, Chicago, Feb. 2, 1895.

HEFFELFINGER, W. W. (Pudge), Minneapolis, Minn., Dec. 20, 1867.

HEIN, Mel, Redding, Calif., Aug. 22, 1909.

HICKMAN, Herman, Johnson City, Tenn., Oct. 1, 1912.

HUTSON, Don, Pine Bluff, Ark., Jan. 31, 1913.

ISBELL, Cecil, Huston, Texas, July 11, 1915.

LAMBEAU, E. L. (Curly), Green Bay, Wis., April 9, 1898.

LAYDEN, Elmer F., Davenport, Iowa, May 4, 1903.

LEAHY, Frank, O'Neill, Nebr., Aug. 21, 1908.

LITTLE, Lou, Leominster, Mass., Dec. 6, 1893.

LUCKMAN, Sid, Brooklyn, Nov. 21, 1916.

McLAUGHRY, DeOrmond (Tuss), Chicago, May 19, 1893.

McMILLIN, Alvin N. (Bo), Prairie Hill, Tex., Jan. 12, 1899.

MICHELOSEN, Johnny, Pittsburgh, Feb. 13, 1915.

MOTLEY, Marion, Leesburg, Ga., June 5, 1920.

NAGURSKI, Bronko, International Falls, Minn., Nov. 3, 1908.

NEALE, Earle (Greasy), Parkersburg, W. Va., Nov. 6, 1891.

NEVERS, Ernie, Willow River, Minn., June 11, 1903.

NEYLAND, Robert, Greenville, Texas, Sept. 17, 1892.

OWEN, Steve, Cleo Springs, Okla., April 21, 1898.

PARKER, Raymond K., Kemp, Texas, Dec. 16, 1913.

PHELAN, Jimmy, Sacramento, Calif., Dec. 5, 1893.

RONZANI, Gene, Iron Mountain, Mich., March 28, 1909.

SHAUGHNESSY, Clark D., St. Cloud, Minn., Mar. 6, 1892.

SHAW, Lawrence T. (Buck), Mitchellville, Iowa, March 28, 1899.

SPEEDIE, Mac, Odell, Ill., Jan. 12, 1920.

SPEARS, Dr. Clarence W., De Witt, Ark., July 24, 1894.

STAGG, A. Alonzo, West Orange, N. J., Aug. 16, 1862.

STRONG, Ken, West Haven, Conn., Apr. 21, 1906.

STYDAHAR, Joe, Kaylor, Pa., March 3, 1912.

STUHLDREHER, Harry A., Massillon, Ohio, Oct. 14, 1901.

THOMAS, Frank, Muncie, Ind., Nov. 15, 1898.

THORPE, Jim, near Prague, Okla., May 28, 1888.

TRIPPI, Charley, Pittston, Pa., Dec. 14, 1922.

VAN BUREN, Steve, Tela, Honduras, Dec. 20, 1920.

WADE, Wallace, Trenton, Tenn., June 15, 1892.

WARNER, Glenn S., Springville, N. Y., Apr. 5, 1871.

WATERFIELD, Bob, Elmira, N. Y., July 26, 1920.

GOLF

ALEXANDER, Stewart (Skip), Jr., Lexington, N. C., Aug. 6, 1918.

ARMOUR, Tommy, Edinburgh, Scotland, Sept. 24, 1895.

CHAPMAN, Dick, Greenwich, Conn., March 23, 1911.

COTTON, Henry, Jan. 26, 1907.

DEMARET, Jim, Houston, Texas, May 10, 1910.

DUDLEY, Ed, Brunswick, Ga., Feb. 10, 1902.

FERRIER, Jim, Manly, Australia, Feb. 24, 1915.

HAGEN, Walter, Rochester, N. Y., Dec. 21, 1892.

HARMON, Claude, Savannah, Ga., July 14, 1916.

HOGAN, Ben, Dublin, Tex., Aug. 13, 1912.

JONES, Bobby, Atlanta, Mar. 17, 1902.

LITTLE, W. Lawson, Jr., Newport, R. I., June 23, 1910.

LOCKE, Arthur D. (Bobby), Germiston, Transvaal, South Africa, Nov. 20, 1917.

McSPADEN, Harold (Jug), Rosedale, Kans., July 21, 1908.

MANGRUM, Lloyd, Dallas, Aug. 1, 1914.

MIDDLECOFF, Cary, Halls, Tenn., Jan. 6, 1921.

NELSON, Byron; Fort Worth, Texas, Feb. 4, 1912.

OLIVER, Ed (Porky), Wilmington, Del., Sept. 6, 1916.

ORCUTT, Maureen, New York, Apr. 1, 1907.

RIEGEL, Robert H. (Skee), New Bloomfield, Pa., Nov. 25, 1914.

SARAZEN, Gene, Harrison, N. Y., Feb. 27, 1902.

SHUTE, Denny, Cleveland, Oct. 25, 1904.

SNEAD, Sam, Hot Springs, Va., May 27, 1912.

STRANAHAN, Frank R., Toledo, Ohio, Aug. 5, 1922.

SUGGS, Louise, Atlanta, Ga., Sept. 7, 1923.

TURNESA, Joe, New York, Jan. 31, 1901.

TURNESA, Willie, Elmsford, N. Y., Jan. 20, 1914.

VARE, Glenna Collett, New Haven, Conn., June 20, 1903.

VINES, H. Ellsworth, Jr., Los Angeles, Calif., Sept. 28, 1911.

WARD, Marvin H. (Bud), Olympia, Wash., May 1, 1913.

WORSHAM, Lew, Alta Vista, Va., Oct. 5, 1917.

ZAHARIAS, Mildred Didrikson (Babe), Port Arthur, Tex., June 26, 1913.

HOCKEY

ABEL, Sid, Melville, Sask., Feb. 22, 1918.

ADAMS, Jack, Fort William, Ontario, June 14, 1895.

BENTLEY, Doug, Delisle, Sask., Sept. 3, 1916.

BENTLEY, Max, Delisle, Sask., March 1, 1920.

BOUCHER, Frank, Ottawa, Ont., Oct. 7, 1901.

BRODA, Walter (Turk), Brandon, Manitoba, May 15, 1914.

CAMPBELL, Clarence, Fleming, Saskatchewan, July 9, 1905.

COLVILLE, Neil, Edmonton, Alberta, Aug. 4, 1914.

DAY, C. H. (Happy), Owen Sound, Ontario, June 1, 1901.

GOODFELLOW, Ebbie, Ottawa, April 9, 1907.

IRVIN, Dick, Hamilton, Ont., July 19, 1892.

IVAN, Tommy, Toronto, Jan. 31, 1911.

KENNEDY, Ted, Port Colborne, Ontario, Dec. 12, 1925.

LINDSAY, Ted, Renfrew, Ontario, July 29, 1925.

MORTSON, Gus, New Liskeard, Ontario, Jan. 24, 1926.

MURDOCH, Murray, Lucknow, Ont., May 19, 1904.

PATRICK, Lester, Drummondville, Quebec, Dec. 31, 1883.

PATRICK, Lynn, Victoria, B. C., Feb. 3, 1912.

PRIMEAU, Joe, Lindsay, Ontario, Jan. 29, 1906.

RAYNER, Chuck, Sutherland, Sask., Aug. 11, 1920.

REARDON, Kenny, Winnipeg, Manitoba, April 1, 1921.

RICHARD, Maurice, Montreal, Quebec, Aug. 4, 1921.

ROSS, Arthur H., Naughton, Ontario, Jan. 13, 1886.

SCHMIDT, Milt, Kitchener, Ontario, March 5, 1918.

SHORE, Eddie, Fort Qu'Appelle, Saskatchewan, Nov. 26, 1902.

SMYTHE, Conn, Toronto, Feb. 1, 1895.

STEWART, Jack, Pilot Mound, Manitoba, May 6, 1917.

WATSON, Phil, Montreal, Oct. 24, 1914.

HORSE RACING

ADAMS, Johnny, Iola, Kans., Aug. 1, 1914.

ARCARO, Eddie, Cincinnati, Ohio, Feb. 19, 1916.

ATKINSON, Ted, Toronto, June 17, 1916.

BROOKS, Steve, McCook, Nebr., Aug. 12, 1921.

CASSIDY, Marshall, Washington, D. C., Feb. 21, 1892.

DRAYTON, Spencer J., Boston, April 20, 1910.

FITZSIMMONS, James (Sunny Jim), Sheepshead Bay, N. Y., July 23, 1874.

GAVER, John M., Mt. Airy, Md., Oct. 29, 1900.

GLISSON, Gordon, Winnsboro, S. C., Oct. 31, 1930.

HIRSCH, Max, Fredericksburg, Texas, July 12, 1880.

JACOBS, Hirsch, New York, April 8, 1904.

JONES, Ben A., Parnell, Mo., Dec. 31, 1882.

JONES, H. A. (Jimmy), Parnell, Mo., Nov. 24, 1906.

LONGDEN, Johnny, Wakefield, England, Feb. 14, 1910.

MEHRTENS, Warren, Brooklyn, N. Y., Nov. 5, 1920.

SANDE, Earl, Groton, S. D., Nov. 19, 1898.

VANDERBILT, Alfred G., London, England, Sept. 22, 1912.

WHITNEY, C. V., New York, Feb. 20, 1899.

WIDENER, George D., Philadelphia, March 11, 1889.

WOODWARD, William, New York, N. Y., April 7, 1876.

TENNIS

BAKER, Beverly, Providence, R. I., March 13, 1930.

BROUGH, A. Louise, Oklahoma City, Okla., March 11, 1923.

BUDGE, J. Donald, Oakland, Calif., June 13, 1915.

COCHELL, Earl H., Sacramento, Calif., May 18, 1922.

CONNOLLY, Maureen, San Diego, Calif., Sept. 17, 1934.

DU PONT, Margaret Osborne, Joseph, Oreg., March 4, 1918.

FLAM, Herbert, Brooklyn, Oct. 17, 1928.

FRY, Shirley, Akron, Ohio, June 30, 1927.

GONZALES, Richard (Pancho), Los Angeles, May 9, 1928.

HART, Doris, St. Louis, June 20, 1925.

KINGMAN, Russell B., East Orange, N. J., Dec. 17, 1884.

KRAMER, John A., Las Vegas, Nev., Aug. 1, 1921.

LARSEN, Arthur, San Leandro, Calif., April 17, 1925.

McGREGOR, Kenneth, Adelaide, Australia, June 2, 1929.

MARBLE, Alice I., Plumas County, Calif., Sept. 28, 1913.

MULLOY, Gardnar, Miami, Fla., Nov. 22, 1914.

PATTY, Budge, Feb. 11, 1924.

RICHARDS, Vincent, New York, N. Y., March 20, 1903.

RIGGS, Robert L., Los Angeles, Calif., Feb. 25, 1918.

ROARK, Helen Wills Moody, Centerville, Calif., Oct. 6, 1905.

SAVITT, Dick, Bayonne, N. J., March 4, 1927.

SCHROEDER, Ted., Newark, N. J., July 20, 1921.

SEDGMAN, Frank, Mont Albert, Victoria, Australia, Oct. 29, 1927.

SEGURA, Francisco, Guayaquil, Ecuador, June 20, 1921.

SEIXAS, E. Victor, Jr., Philadelphia, Aug. 30, 1923.

TALBERT, Billy, Cincinnati, Sept. 4, 1918.

TILDEN, William T., II, Philadelphia, Pa., Feb. 10, 1893.

OTHER SPORTS

ANGYAL, Joe, New York, April 6, 1916 (Rowing).

BARTHOLOMEW, Ken, Leonard, N. D., Feb. 10, 1920 (Speed skating).

BINGHAM, William J., Norristown, Pa., Aug. 8, 1889 (Athletic director).

BOSTWICK, George H. (Pete), New York, Aug. 14, 1909 (Polo).

BRUNDAGE, Avery, Detroit, Sept. 28, 1887 (Executive).

BUSHNELL, Asa S., Springfield, Ohio, Feb. 2, 1900 (Executive).

COFFEY, Jack, New York, Jan. 28, 1888 (Athletic director).

CROMWELL, Dean B., Turner, Oreg., Sept. 20, 1879 (Track and Field).

DE CAPRILES, Miguel A., Mexico City, Mexico, Nov. 30, 1906 (Fencing).

DE CAPRILES, José R., Mexico City, Mexico, Feb. 13, 1912 (Fencing).

DEVLIN, Arthur, Lake Placid, N. Y., Sept. 7, 1923 (Skiing).

DILLARD, Harrison, Cleveland, July 8, 1923 (Track).

ELLING, Emil Von, New York, N. Y., Mar. 30, 1883 (Track and Field).

EVERY, Dernell, Athens, N. Y., Aug. 18, 1906 (Fencing).

FERRIS, Dan, Pawling, N. Y., July 7, 1899 (Track and Field).

FUCHS, Jim, Chicago, Dec. 6, 1927 (Shot-putter).

HELMS, Hermann, Brooklyn, Jan. 5, 1870 (Chess).

HENRY, Ken, Chicago, Ill., Jan. 7, 1929 (Speed skating).

HOPPE, Willie, Cornwall, N. Y., Oct. 11, 1887 (Billiards).

IGLEHART, Stewart, Feb. 22, 1910 (Polo).

KILPATRICK, John Reed, New York, N. Y., June 15, 1889 (Executive).

KIPHUTH, Robert J. H. (Bob), Tonawanda, N. Y., Nov. 17, 1890 (Swimming).

McLANE, Jimmy, Pittsburgh, Sept. 13, 1930 (Swimming).

MARSHALL, John, Bondi, N. S. W., Australia, March 29, 1930 (Swimming).

MATHIAS, Bob, Tulare, Calif., Nov. 17, 1930 (Track and Field).

NYILAS, Tibor, Budapest, Hungary, June 3, 1914 (Fencing).

OWENS, Jesse, Decatur, Ala., Sept. 12, 1913 (Track and Field).

PALIN, Sep. F., Rushville, Ind., April 11, 1876 (Harness racing).

RICE, Grantland, Murfreesboro, Tenn., Nov. 1, 1880 (Writer).

SCHAEFER, Jake, Chicago, Oct. 18, 1894 (Billiards).

STACK, Allen, New Haven, Conn., Jan. 23, 1928 (Swimming).

VARIPAPA, Andy, Italy, Mar. 31, 1894 (Bowling).

WERKET, John R., St. Paul, Minn., Oct. 8, 1924 (Speed skating).

WHITE, Ben, Whiteville, Ontario, Feb. 5, 1873 (Harness racing).

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CANCER Society, Inc., American; 47 Beaver St., N. Y.

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CHILDREN'S AID Society; 105 E. 22 St., N. Y. 10.

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VETERANS of World War II (AMVETS); 724 9 St. NW, Wash. 1, D. C.
WOMAN'S Assn., American; 111 E. 48 St., N. Y. 17.
WOMEN of the U. S., Inc., Natl. Council of; 501 Madison Ave., N. Y. 22.
WOMEN VOTERS OF U. S., League of; 1026 17 St. NW, Wash. 6, D. C.
WOMEN'S CLUBS, General Federation of; 1734 N St. NW, Wash. 6, D. C.
WOMEN'S CLUBS, Inc., Natl. Federation of Business & Professional; 1819 Broadway, N. Y. 23.
WOMEN'S VOLUNTARY SERVICES, Inc., American; 500 Park Ave., N. Y. 22.
WOODMEN CIRCLE, Supreme Forest; 3303 Farnam St., Omaha, Nebr.
WOODROW WILSON Foundation; 45 E. 65 St., N. Y. 21.
WORKMEN'S CIRCLE; 175 E. Broadway, N. Y. 2.
WORLD FEDERALISTS, United; 125 Broad St., N. Y. 4.
WRITERS CLUB, Natl.; 1819 Gilpin St., Denver 6, Colo.
YOUNG MEN'S CHRISTIAN Assns., Natl. Board of; 291 Broadway, N. Y. 7.
YOUNG MEN'S HEBREW Assns. *See* Jewish Welfare Board.
YOUNG WOMEN'S CHRISTIAN Assn. of the U. S. A.; 600 Lexington Ave., N. Y. 22.
YOUTH HOSTELS, Inc., American; 6 E. 39 St., N. Y. 16.
ZIONIST Organization of America; 41 E. 42 St., N. Y. 17.
ZOOLOGISTS, American Society of; Hamilton College, Clinton, N. Y.

Deaths of Prominent Persons, 1933-51

ABDULLAH ibn Hussein (King of Jordan), July 20, 1951 (69).
ADAMIC, Louis (author), Sept. 4, 1951 (52).
ADAMS, James Truslow (historian), May 18, 1949 (70).
ADDAMS, Jane (social worker), May 21, 1935 (74).
ADLER, Alfred (psychologist), May 28, 1937 (67).
ALBERT I (King of Belgium), Feb. 17, 1934 (58).
ALEKHINE, Alexander (chess player), Mar. 24, 1946 (53).
ALFONSO XIII (former King of Spain), Feb. 28, 1941 (54).
ALLEN, Hervey (author), Dec. 28, 1949 (60).
ANDERSON, Sherwood (author), Mar. 8, 1941 (64).
ARLISS, George (actor), Feb. 5, 1946 (77).
ARNOLD, Henry (Hap) (U. S. General), Jan. 15, 1950 (63).
ATHERTON, Gertrude (author), June 14, 1948 (90).
BALDWIN, Stanley (British statesman), Dec. 14, 1947 (80).
BARRIE, Sir James M. (playwright), June 19, 1937 (77).
BARRY, Philip (playwright), Dec. 3, 1949 (53).
BARRYMORE, John (actor), May 29, 1942 (60).
BARTOK, Béla (composer), Sept. 26, 1945 (64).
BAXTER, Warner (actor), May 7, 1951 (58).
BEACH, Rex (author), Dec. 7, 1949 (72).
BEARD, Charles A. (historian), Sept. 1, 1948 (73).
BEER, Thomas (author), Apr. 18, 1940 (50).
BEERY, Noah (actor), Apr. 1, 1946 (62).
BEERY, Wallace (actor), Apr. 15, 1949 (60).
BENCHLEY, Robert (humorist), Nov. 21, 1945 (56).
BENEŠ, Eduard (Czech statesman), Sept. 3, 1948 (64).
BENÉT, Stephen Vincent (author), Mar. 13, 1943 (44).
BENÉT, William Rose (author), May 4, 1950 (64).
BERGSON, Henri (philosopher), Jan. 4, 1941 (81).
BERNADOTTE, Count Folke (U. N. administrator), Sept. 17, 1948 (53).
BEVIN, Ernest (British statesman), Apr. 14, 1951 (70).
BLUM, Léon (French statesman), Mar. 25, 1950 (77).
BOND, Carrie Jacobs (composer), Dec. 28, 1946 (84).
BOOTH, Gen. Evangeline (evangelist), July 17, 1950 (84).
BORAH, William E. (U. S. Senator), Jan. 19, 1940 (74).
BRANDEIS, Louis (U. S. jurist), Oct. 5, 1941 (84).
BRICE, Fanny (comedienne), May 29, 1951 (50).
BRISBANE, Arthur (journalist), Dec. 25, 1936 (72).
BROUN, Heywood (journalist), Dec. 18, 1939 (51).
BUTLER, Nicholas Murray (educator), Dec. 7, 1947 (85).
CAPABLANCA, José (chess player), Mar. 8, 1942 (53).
CAPONE, Al (gangster), Jan. 25, 1947 (48).
CARDOZO, Benjamin (U. S. jurist), July 9, 1938 (68).

CARREL, Alexis (biologist), Nov. 5, 1944 (71).
CARTER, Mrs. Leslie (actress), Nov. 13, 1937 (75).
CARVER, George Washington (botanist), Jan. 5, 1943 (79).
CATHER, Willa (author), Apr. 24, 1947 (70).
CATT, Carrie Chapman (woman-suffragist), Mar. 9, 1947 (88).
CHALIAPIN, Fyodor (basso), Apr. 12, 1938 (65).
CHAMBERLAIN, Neville (British statesman), Nov. 9, 1940 (71).
CHESTERTON, G. K. (author), June 14, 1936 (62).
CHRISTIAN X (King of Denmark), Apr. 20, 1947 (76).
COBB, Irvin (author), Mar. 10, 1944 (67).
COHAN, George M. (actor, author), Nov. 5, 1942 (64).
COOLIDGE, Calvin (U. S. statesman), Jan. 5, 1933 (60).
CORBETT, James J. (boxer), Feb. 18, 1933 (66).
COWL, Jane (actress), June 22, 1950 (65).
CURIE, Marie (physicist), July 4, 1934 (66).
CURTIS, Charles (U. S. statesman), Feb. 8, 1936 (76).
DAMROSCH, Walter (conductor), Dec. 22, 1950 (88).
D'ANNUNZIO, Gabriele (author), Mar. 1, 1938 (73).
DAWES, Charles G. (U. S. statesman), Apr. 23, 1951 (85).
DELIUS, Frederick (composer), June 10, 1934 (71).
DIGGES, Dudley (actor), Oct. 24, 1947 (68).
DOLLFUSS, Engelbert (Austrian statesman), July 25, 1934 (42).
DOUGLAS, Lloyd C. (author), Feb. 13, 1951 (73).
D'OYLY CARTE, Rupert (impressario), Sept. 12, 1948 (71).
DREISER, Theodore (author), Dec. 28, 1945 (74).
DRESSLER, Marie (actress), July 28, 1934 (64).
DREYFUS, Alfred (French army officer), July 12, 1935 (75).
DUCHIN, Eddie (pianist), Feb. 9, 1951 (41).
EARHART, Amelia (aviator), June or July, 1937
ELGAR, Sir Edward (composer), Feb. 23, 1934 (76).
ERSKINE, John (author), June 2, 1951 (71).
FAIRBANKS, Douglas (actor), Dec. 12, 1939 (56).
FALLA, Manuel de (composer), Nov. 14, 1946 (70).
FIELDS, W. C. (comedian), Dec. 25, 1946 (66).
FITZGERALD, F. Scott (author), Dec. 21, 1940 (44).
FORBES-ROBERTSON, Sir Johnston (actor), Nov. 6, 1937 (84).
FORD, Henry (industrialist), Apr. 7, 1947 (83).
FORRESTAL, James (U. S. statesman), May 22, 1949 (57).
FRAZER, Sir James (anthropologist), May 7, 1941 (87).
FREUD, Sigmund (psychologist), Sept. 23, 1939 (83).
GALSWORTHY, John (author), Jan. 31, 1933 (66).
GANDHI, Mohandas K. (Hindu leader), Jan. 30, 1948 (78).
GEHRIG, Lou (baseball player), June 2, 1941 (37).
GEORGE V (King of England), Jan. 20, 1936 (70).
GEORGE II (King of Greece), Apr. 1, 1947 (56).
GERSHWIN, George (composer), July 11, 1937 (38).
GIBSON, Charles Dana (illustrator), Dec. 23, 1944 (77).
GIDE, André (author), Feb. 19, 1951 (81).
GOEBBELS, Joseph (Nazi leader), May 3(?), 1945 (47).
GOERING, Hermann (Nazi leader), Oct. 15, 1946 (53).
GREY, Zane (author), Oct. 23, 1939 (64).
GRIFFITH, David W. (movie director), July 23, 1948 (73).
GUSTAVUS V (King of Sweden), Oct. 29, 1950 (92).
HARLOW, Jean (actress), June 7, 1937 (26).
HEARST, William R. (journalist), Aug. 14, 1951 (88).
HINDENBURG, Paul von (German statesman), Aug. 2, 1934 (86).
HITLER, Adolf (Chancellor of Germany), May 1(?), 1945 (56).
HOLMES, Oliver Wendell (U. S. jurist), Mar. 6, 1935 (93).
HOPKINS, Harry (U. S. administrator), Jan. 29, 1946 (55).
HOUSMAN, A. E. (poet), May 1, 1936 (77).
HOWARD, Leslie (actor), June 1, 1943 (50).
HUGHES, Charles E. (U. S. jurist), Aug. 27, 1948 (86).
HUSTON, Walter (actor), Apr. 7, 1950 (66).
JEANS, Sir James (astronomer), Sept. 17, 1946 (69).
JINNAH, Mohammed Ali (Pakistani statesman), Sept. 11, 1948 (71).
JOHNSON, Hugh S. (U. S. administrator), Apr. 15, 1942 (59).
JOHNSON, Jack (boxer), June 10, 1946 (68).
JOLSON, Al (singer), Oct. 23, 1950 (67).
JOYCE, James (author), Jan. 13, 1941 (58).
KEMAL ATATÜRK (Turkish statesman), Nov. 10, 1938 (57).
KERN, Jerome (composer), Nov. 11, 1945 (60).

KING, William L. Mackenzie (Canadian statesman), July 22, 1950 (75).
KIPLING, Rudyard (author), Jan. 18, 1936 (70).
KOUSSEVITZKY, Serge (conductor), June 4, 1951 (76).
LAGERLÖF, Selma (author), Mar. 16, 1940 (81).
LaGUARDIA, Fiorello (U. S. administrator), Sept. 20, 1947 (64).
LANDIS, Kenesaw Mountain (U. S. jurist), Nov. 25, 1944 (78).
LARDNER, Ring (author), Sept. 25, 1933 (48).
LASKER, Emanuel (chess player), Jan. 11, 1941 (72).
LASKI, Harold J. (political scientist), Mar. 24, 1950 (56).
LAUDER, Sir Harry (singer), Feb. 26, 1950 (79).
LAVAL, Pierre (French politician), Oct. 15, 1945 (62).
LAWRENCE, T. E. (Lawrence of Arabia) (author, soldier), May 19, 1935 (46).
LEHÁR, Franz (composer), Oct. 24, 1948 (78).
LEONARD, Benny (boxer), Apr. 18, 1947 (51).
LEWIS, Sinclair (author), Jan. 10, 1951 (65).
LLOYD GEORGE, David (British statesman), Mar. 26, 1944 (82).
LODGE, Sir Oliver (physicist, author), Aug. 22, 1940 (89).
LOMBARD, Carole (actress), Jan. 16, 1942 (33).
LONG, Huey (U. S. Senator), Sept. 10, 1935 (42).
LUDENDORFF, Erich (German General), Dec. 20, 1937 (72).
McCORMACK, John (tenor), Sept. 16, 1945 (61).
MacDONALD, James Ramsay (British statesman), Nov. 9, 1937 (71).
McGRAW, John J. (baseball manager), Feb. 25, 1934 (60).
MAETERLINCK, Maurice (author), May 6, 1949 (86).
MARCONI, Guglielmo (inventor), July 20, 1937 (63).
MARIE (Queen Dowager of Rumania), July 18, 1938 (62).
MARKHAM, Edwin (poet), Mar. 7, 1940 (87).
MASARYK, Jan (Czech statesman), Mar. 10, 1948 (61).
MASARYK, Thomas G. (Czech statesman), Sept. 14, 1937 (87).
MASTERS, Edgar Lee (poet), Mar. 5, 1950 (81).
MIKHAILOVIC, Draja (Yugoslav General), July 17, 1946 (53).
MILLAY, Edna St. Vincent (poet), Oct. 19, 1950 (58).
MILLER, Glenn (band leader), Dec. 15, 1944 (35).
MITCHELL, Margaret (author), Aug. 16, 1949 (49).
MOONEY, Thomas J. (labor leader), Mar. 6, 1942 (60).
MORGAN, Helen (singer), Oct. 8, 1941 (41).
MORGAN, J. P. (financier), Mar. 13, 1943 (75).
MUSSOLINI, Benito (Premier of Italy), Apr. 28, 1945 (61).
NIJINSKY, Waslaw (dancer), Apr. 8, 1950 (60).
OROZCO, José (painter), Sept. 7, 1949 (65).
PADEREWSKI, Ignace Jan (pianist), June 29, 1941 (80).
PATTON, George S., Jr. (U. S. General), Dec. 21, 1945 (60).
PAVLOV, Ivan (physiologist), Feb. 27, 1936 (86).
PERSHING, John J. (U. S. General), July 15, 1948 (87).
PÉTAIN, Henri-Philippe (French ex-Marshal), July 23, 1951 (95).
PHELPS, William Lyon (literary critic), Aug. 21, 1943 (78).
PILSUDSKI, Josef (Polish statesman), May 12, 1935 (67).
PIRANDELLO, Luigi (author), Dec. 10, 1936 (69).
PIUS XI (Pope), Feb. 10, 1939 (81).
PLANCK, Max (physicist), Oct. 3, 1947 (89).
PULITZER, Ralph (journalist), June 14, 1939 (60).
PYLE, Ernie (journalist), Apr. 18, 1945 (61).
QUEZON, Manuel Luis (Philippine statesman), Aug. 1, 1944 (65).
RACHMANINOFF, Sergei (pianist, composer), May 28, 1943 (69).
RASMUSSEN, Knud (explorer), Dec. 21, 1933 (54).
RAVEL, Maurice (composer), Dec. 28, 1937 (62).
REINHARDT, Max (theatrical director), Oct. 31, 1943 (70).
RIPLEY, Robert L. (cartoonist), May 27, 1949 (55).
ROBINSON, Bill (tap dancer), Nov. 25, 1949 (71).
ROBINSON, Edward Arlington (poet), Apr. 6, 1935 (65).
ROCKEFELLER, John D. (industrialist), May 23, 1937 (97).
ROGERS, Will (humorist), Aug. 15, 1935 (55).
ROLLAND, Romain (author), Dec. 30, 1944 (78).
ROMMEL, Erwin (German General), Oct. 15(?), 1944 (52).
ROOSEVELT, Franklin D. (U. S. statesman), Apr. 12, 1945 (63).
RUNYON, Damon (author), Dec. 10, 1946 (62).
RUTH, Babe (baseball player), Aug. 16, 1948 (53).

SCHNABEL, Artur (pianist), Aug. 15, 1951 (69).
SCHOENBERG, Arnold (composer), July 13, 1951 (76).
SCHUMANN-HEINK, Ernestine (contralto), Nov. 17, 1936 (75).
SETON, Ernest Thompson (author), Oct. 23, 1946 (86).
SHAW, George Bernard (playwright), Nov. 2, 1950 (94).
SKINNER, Otis (actor), Jan. 4, 1942 (83).
SLOAN, John (artist), Sept. 8, 1951 (80).
SMITH, Alfred E. (U. S. politician), Oct. 4, 1944 (70).
SMITH, Sir C. Aubrey (actor), Dec. 20, 1948 (85).
SMUTS, Jan Christiaan (South African statesman), Sept. 11, 1950 (80).
SPENGLER, Oswald (philosopher), May 8, 1936 (51).
STANISLAVSKY (theatrical producer), Aug. 7, 1938 (75).
STEFFENS, Lincoln (journalist), Aug. 9, 1936 (70).
STEIN, Gertrude (author), July 27, 1946 (72).
STETTINIUS, Edward R., Jr. (U. S. statesman), Oct. 31, 1949 (49).
STIMSON, Henry L. (U. S. statesman), Oct. 20, 1950 (83).
STRAUSS, Richard (composer), Sept. 8, 1949 (85).
TARKINGTON, Booth (author), May 19, 1946 (76).
TEASDALE, Sara (poet), Jan. 29, 1933 (48).
THYSSEN, Fritz (German industrialist), Feb. 8, 1951 (77).
TROTSKY, Leon (former Soviet statesman), Aug. 21, 1940 (61).
UNDSET, Sigrid (author), June 10, 1949 (67).
VALÉRY, Paul (poet), July 20, 1945 (73).
VANDENBURG, Arthur H. (U. S. Senator), Apr. 18, 1951 (67).
VAN DOREN, Carl (author), July 18, 1950 (64).
VAN LOON, Hendrick (author), Mar. 11, 1944 (62).
VICTOR EMANUEL III (King of Italy), Dec. 28, 1947 (78).
WALKER, James J. (U. S. politician), Nov. 18, 1946 (65).
WALKER, Robert (actor), Aug. 28, 1951 (32).
WARFIELD, David (actor), June 27, 1951 (84).
WELLS, H. G. (author), Aug. 13, 1946 (79).
WERFEL, Franz (author), Aug. 26, 1945 (54).
WHARTON, Edith (author), Aug. 11, 1937 (75).
WHITE, William Allen (journalist), Jan. 29, 1944 (75).
WILLIAM II (former Kaiser of Germany), June 4, 1941 (82).
WILLKIE, Wendell (U. S. politician), Oct. 8, 1944 (52).
WISE, Dr. Stephen S. (rabbi), Apr. 19, 1949 (75).
WOLFE, Thomas (author), Sept. 15, 1938 (37).
WOOD, Grant (painter), Feb. 12, 1942 (49).
WOOLF, Virginia (author), Mar. 28(?), 1941 (59).
WOOLLCOTT, Alexander (author), Jan. 23, 1943 (56).
WRIGHT, Harold Bell (author), May 24, 1944 (72).
WRIGHT, Orville (inventor), Jan. 30, 1948 (76).
YEATS, William Butler (poet), Jan. 28, 1939 (73).
YOUMANS, Vincent (composer), Apr. 5, 1946 (47).

The National Red Cross

The American National Red Cross was first organized in 1881 as the American Association of the Red Cross by its founder and first president, Clara Barton, in accordance with the Treaty of Geneva, which the U. S. signed in 1882. It was reincorporated with its present title under government supervision on January 5, 1905, by act of Congress. On May 8, 1947, changes in the charter giving chapters majority representation in the governing body were enated into law.

The President of the U. S. is Honorary Chairman of the Red Cross; its President is E. Roland Harriman.

National headquarters are at 17th and D Streets, N. W., Washington, D. C. Total membership, according to latest available records, include 18,098.250 adults, with 19,314,427 children and young people enrolled in the Junior Red Cross. The American National Red Cross has a total of 3,745 chapters and about 5,000 branches.

The primary functions of the American Red Cross are to furnish volunteer aid to the sick and wounded of armies in time of war; to serve as a medium of communication between the people of the United States and their armed forces; to provide relief in national and international calamities, and to carry on a program designed to prevent such disasters.

Many health services are included in the program—instruction in first aid, water safety, accident prevention, home nursing, and nutrition. The National Blood Program to collect, process, and distribute blood and its derivatives for medical use, without charge, in time will serve the needs of every community.

ASTRONOMY AND CALENDAR

Edited by

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Kinds of Time

Of the three main kinds of time (sidereal, apparent solar, and mean solar), the two kinds used in our calendar pages (local civil and standard time) are both types of mean solar time.

Sidereal time is used mostly in astronomy. It is nearly but not exactly star-time, and is measured by the diurnal rotation of the vernal equinox point in the sky. Sidereal days are shorter than solar days by about $3^m\ 56^s$ of mean time.

Apparent solar time is measured by the apparent diurnal rotation of the sun, and is the hour-angle of the sun $+12^h$. When the sun is at lower transit we have 0^h by apparent time; when it is on the upper meridian the apparent time is 12^h. The sun is not a good timekeeper, its eastward motion along the ecliptic being irregular, so apparent days are of unequal duration.

Mean solar time is the hour-angle of the "mean sun" $+12^h$. The mean sun is an imaginary body moving uniformly along the celestial equator. When the mean sun is on the lower meridian, the mean time is 0^h. The actual sun is sometimes ahead of and sometimes behind the mean sun, and the difference at any moment is the *equation of time.* When the sun is west of the mean sun, we have the "sun fast" situation, and the sun crosses the meridian before the mean sun; when the sun is east of the mean sun, we have the "sun slow" condition, and the sun transits after the mean sun. The equation of time helps in conversion of apparent and mean solar time. No clock runs on apparent time but ordinary clocks keep mean solar time in some form.

Local civil time (L.C.T.) is the mean solar time of a designated meridian, and its day begins with the mean sun at lower transit. This is midnight, the moment of *zero hour* (0^h). Ordinary clocks are not set to local civil time, because this time—at any instant—varies with any change of longitude.

Standard time is the local civil time of a standard meridian, but used over an entire time-zone. In the U. S. the four zones (Eastern, Central, Mountain, and Pacific) are based upon the standard meridians of 75°, 90°, 105°, and 120° respectively. Ordinary clocks run on standard time, a type of mean solar time. In the summer, in certain localities, they run on advanced time (as daylight saving time) but this is only a clock-setting, and is actually standard time. Daylight saving time for a certain zone is the normal standard time of one zone to the east. While popular in certain metropolitan areas, it is not used for scientific observations. Advanced time is 1^h later on the clock-face than the normal standard time of the same zone.

Time zones. A time-zone chart of the entire world shows clearly how the world is divided into 24 time zones according to longitude. In a large proportion of countries, standard time is in use, and commonly the time on the clock-face reads 1 hour later for each zone east of a given zone, and 1 hour earlier for each zone west of a given zone. The zero time-zone of the world runs thru Greenwich, Eng., and the zones are so marked that the standard time at a particular station, added algebraically to the zone-number at the bottom gives the corresponding universal time or Greenwich civil time. For example, 3 A.M., M.S.T. $+ 7^h = 10^h$ U.T. or G.C.T.

Mexico, except for the northern part of Lower California, uses 90th-meridian time entirely. Canada uses the 4 standard-time zones of the U. S., and two others: (1) 60th-meridian or Atlantic standard time, for New Brunswick, Nova Scotia, and Quebec (east of 68° w.), 4^h earlier than Greenwich, and (2) 135th-meridian or Yukon standard time, 9^h earlier than Greenwich

Newfoundland and the Labrador coast use Newfoundland standard time, 3h 30m earlier than Greenwich. Alaska uses 4 time-zones, those based on the following meridians of west longitude: 120° (Juneau), 135° or Yukon standard time (Yakutat), 150° or Alaska standard time (Fairbanks), and 165° (Nome).

The Date-line. At any moment of time, usually there are parts of two different but contiguous days going on at different places on the earth. The change of date is made at the date-line, an imaginary line that follows essentially the course of the 180° meridian in the Pacific Ocean. At points east of the date-line the calendar day is 1 day earlier than at places to the west of the line. At a point just west of the date-line, let us suppose it is 18h or 6 P.M., L.C.T., on Aug. 1. At the same moment it is 12h at long. 90° e., 6h at long. 0°, and 0h at long. 90° w., all of the same date, Aug. 1. West of long. 90° w., it is not yet 0h (midnight); hence between 90° w. and 180° the date must be July 31. As one crosses the date-line going eastward his watch remains the same but the date changes abruptly to 1 day earlier, so the traveler repeats part of a calendar day. As one crosses the line going westward the date changes abruptly to one day later, causing him to omit a calendar day. (According to actual practice, the change is made at night regardless of the true moment of crossing.)

On Using the Following Calendar Pages

Sun fast and sun slow. This is the *equation of time*, as previously discussed.

Sunrise and sunset. For accurate results, two corrections to the tabular values are necessary: (1) interpolation for latitude, and (2) reduction to standard time. When the observer is at a latitude between two given latitudes, he computes a time for sunrise or sunset that lies between the times shown for the given latitudes. (Our table of longitudes and latitudes is a guide for one's position, but a large atlas may be consulted.) For example, on June 15 the sun sets at 7:15 P.M. at lat. 35° and at 7:30 at lat. 40°, the difference being +15m. An observer at Death Valley Jc., Calif., lat. 36°19′, would be about 0.26 the distance between 35° and 40°. (0.26) (+15m) = +3m.9 or +4m; hence at Death Val. Jc. sunset occurs at 7:15 + 4m or 7:19 P.M., L.C.T. The station (long. 116° 25′ w.) is 3° 35′ or 3°.58 east of the 120° standard meridian; 3.58 (4m) = 14m.3; 7:19 − 14m = 7:05 P.M., P.S.T., sunset time.

In the sun and moon tables, the data has to be given in LOCAL CIVIL TIME. This is *not* standard time, but has to be reduced to standard time.

To reduce local civil time to standard time, decrease the L.C.T. by 4m for every degree the station is east of the standard meridian, or increase the L.C.T. by 4m for every degree the station is west of the standard meridian.

Moonrise and moonset. For accurate results at any station in the U. S., three corrections are needed: (1) interpolation for latitude, (2) correction for longitudes west of 82½°, and (3) reduction to standard time.

(1) Interpolation for latitude follows the same method as for the sun.

(2) Use of the *a-factor.* The moon tables are exact for the given latitudes and for longitude 75° w. The a-factor adapts them to any longitude in the U. S. For observers in the eastern states and as far west as long. 82½° [Port Huron, Mich., Mansfield, Ohio, Huntington, W. Va., Asheville, N. C., Tampa, Fla.], no a-factor is used. For stations in the 90° zone, between 82½° and 97½°, use the a-factor in the column "90°". The "a-factor, moonrise" is always to be added to the time of moonrise as derived from the main tables, and the "a-factor, moonset" is added to the time of moonset as derived. The boundary at 97½°, between the 90° and the 105° zones, runs through Grafton, N. Dak., Webster, S. Dak., Norfolk, Nebr., Salina, Kans., Oklahoma City, Okla., Fort Worth and Corpus Christi, Tex. Observers in the 105° zone, between 97½° and 112½° long., will use the "105°" a-factor, and those west of 112½° will use the "120°" a-factor, the eastern boundary (112½°) of the 120° zone going through Butte, Mont., Pocatello, Idaho, Panguitch, Utah, and Prescott, Ariz. These zones do *not* correspond to the irregular divisions of the standard-time belts.

(3) Change L.C.T. to standard time.

Example: find moonset on July 7, 1952, at Monticello, Utah (long. 109° 21′ w., lat. 37° 53′ n.). (a) Moonset for 35° is 4:38 A.M.; for 40°, 4:21 A.M.; the difference is −17m. Monticello is 0.58 the distance from 35° to 40°; we have 0.58(−17m) = −9m.86 = −10m; 4:38 − 10m = 4:28 A.M. (b) Add a-factor, moonset, for 105° [7m or better 8m for 109°]; 4:28 + 8m = 4:36 A.M., L.C.T. (c) Reduce to standard time. 109° 21′ − 105° = 4°.35; hence Monticello is 4°.35 w. of the 105° meridian; 4.35 (4m) = 17m.4 = 17m; 4:36 + 17m = 4:53 A.M., M.S.T., moonset at Monticello, Utah.

Moon's transit. This data indicates the local civil time of the moon crossing the observer's meridian. The time is the same for all latitudes. It is nearly correct for all longitudes in the U. S.; for more exact work use—for every day—a mean a-factor of 2m, 4m, 6m. That is, for the 75° zone, use no correction; for the 90° zone add 2m to the time in the tables; for the 105° zone add 4m; for the 120° zone add 6m. Afterward, reduce the L.C.T. to standard time.

Jan.	Sun slow	a-factor, moonrise 90°	105°	120°	LOCAL CIVIL TIME Latitude 30° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 35° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 40° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 45° n. Sun-rise	Sun-set	Moon-rise	Moon-set	Moon's upper transit	a-factor, moonset 90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Tue.	3 6	1	2	3	6 56	5 11	10 16	10 7	7 8	4 59	10 20	10 4	7 22	4 45	10 24	10 2	7 39	4 28	10 30	9 58	4 7	3	6	9
2 Wed.	3 35	1	2	3	6 56	5 11	10 47	11 10	7 8	4 59	10 48	11 10	7 22	4 45	10 49	11 11	7 39	4 29	10 50	11 13	4 54	3	6	8
3 Thu.	4 3	1	2	3	6 56	5 12	11 17	.....	7 8	5 0	11 15	.....	7 22	4 46	11 12	.....	7 39	4 30	11 9	.....	5 40	3	6	8
4 Fri.	4 31	1	2	3	6 57	5 13	11 47	0 10	7 9	5 1	11 42	0 14	7 22	4 47	11 35	0 19	7 39	4 31	11 28	0 25	6 25	3	6	8
5 Sat.	4 59	1	2	3	6 57	5 14	12 19	1 9	7 9	5 2	12 10	1 17	7 22	4 48	12 1	1 26	7 38	4 32	11 49	1 36	7 11	3	5	8
6 Sun.	5 26	1	3	4	6 57	5 14	12 54	2 9	7 9	5 2	12 42	2 20	7 22	4 49	12 29	2 32	7 38	4 33	12 13	2 46	7 58	3	5	8
7 Mon.	5 52	2	3	5	6 57	5 15	1 32	3 8	7 9	5 3	1 18	3 22	7 22	4 50	1 1	3 37	7 38	4 34	12 42	3 55	8 47	3	5	8
8 Tue.	6 18	2	4	6	6 57	5 16	2 15	4 7	7 9	5 4	2 0	4 22	7 22	4 51	1 40	4 39	7 38	4 35	1 19	5 2	9 38	3	5	7
9 Wed.	6 44	2	4	6	6 57	5 17	3 4	5 3	7 9	5 5	2 47	5 20	7 22	4 52	2 28	5 39	7 38	4 36	2 4	6 2	10 30	2	4	7
10 Thu.	7 9	2	5	7	6 57	5 17	3 56	5 56	7 9	5 6	3 40	6 12	7 22	4 53	3 21	6 32	7 38	4 37	2 58	6 54	11 21	2	4	6
11 Fri.	7 33	3	5	8	6 57	5 18	4 52	6 43	7 9	5 7	4 37	6 58	7 22	4 54	4 20	7 16	7 37	4 38	3 59	7 38	.....	2	3	5
12 Sat.	7 57	3	5	8	6 57	5 19	5 49	7 24	7 9	5 8	5 36	7 37	7 22	4 55	5 21	7 53	7 37	4 39	5 4	8 12	0 10	1	3	4
13 Sun.	8 21	3	5	8	6 57	5 20	6 46	8 1	7 9	5 9	6 35	8 11	7 21	4 56	6 24	8 25	7 37	4 41	6 10	8 39	0 58	1	2	3
14 Mon.	8 44	3	5	8	6 57	5 21	7 41	8 33	7 8	5 10	7 34	8 41	7 21	4 57	7 26	8 51	7 36	4 42	7 16	9 2	1 43	1	2	3
15 Tue.	9 6	3	5	8	6 58	5 22	8 36	9 2	7 8	5 11	8 32	9 7	7 21	4 58	8 27	9 14	7 36	4 43	8 21	9 22	2 25	1	2	3
16 Wed.	9 27	3	5	8	6 57	5 22	9 30	9 29	7 8	5 11	9 29	9 32	7 20	4 59	9 28	9 35	7 35	4 44	9 26	9 39	3 6	1	2	2
17 Thu.	9 48	3	5	8	6 57	5 23	10 26	9 56	7 8	5 12	10 27	9 56	7 20	5 0	10 29	9 55	7 35	4 46	10 32	9 55	3 47	1	2	3
18 Fri.	10 8	3	5	8	6 57	5 24	11 23	10 23	7 7	5 13	11 28	10 19	7 20	5 1	11 34	10 17	7 34	4 47	11 40	10 12	4 28	1	2	3
19 Sat.	10 27	3	6	8	6 56	5 25	.....	10 53	7 7	5 14	.....	10 46	7 19	5 2	.....	10 39	7 33	4 48	.....	10 30	5 11	1	2	3
20 Sun.	10 46	3	6	9	6 56	5 26	0 23	11 25	7 7	5 15	0 31	11 15	7 19	5 4	0 41	11 4	7 33	4 50	0 51	10 52	5 57	1	3	4
21 Mon.	11 4	3	6	9	6 56	5 27	1 27	12 3	7 6	5 16	1 38	11 51	7 18	5 5	1 51	11 37	7 32	4 51	2 6	11 20	6 48	2	3	5
22 Tue.	11 22	3	6	9	6 56	5 28	2 34	12 50	7 6	5 17	2 48	12 35	7 17	5 6	3 5	12 18	7 31	4 52	3 24	11 58	7 44	2	4	6
23 Wed.	11 38	3	6	9	6 55	5 28	3 43	1 47	7 5	5 18	3 59	1 30	7 17	5 7	4 20	1 11	7 30	4 54	4 42	12 48	8 46	3	5	8
24 Thu.	11 54	3	5	8	6 55	5 29	4 52	2 54	7 5	5 19	5 8	2 37	7 16	5 8	5 28	2 18	7 30	4 55	5 51	1 54	9 52	3	6	9
25 Fri.	12 9	2	4	6	6 55	5 30	5 53	4 7	7 4	5 20	6 9	3 52	7 16	5 9	6 26	3 35	7 29	4 56	6 49	3 14	10 58	3	7	10
26 Sat.	12 23	2	3	5	6 54	5 31	6 47	5 23	7 4	5 22	7 0	5 11	7 15	5 11	7 14	4 57	7 28	4 58	7 32	4 41	12 1	3	7	10
27 Sun.	12 37	1	3	4	6 54	5 32	7 31	6 37	7 3	5 23	7 40	6 28	7 14	5 12	7 52	6 18	7 27	4 59	8 4	6 8	1 0	3	7	10
28 Mon.	12 49	1	2	3	6 53	5 33	8 9	7 46	7 3	5 24	8 15	7 42	7 13	5 13	8 23	7 37	7 26	5 1	8 30	7 32	1 54	3	6	9
29 Tue.	13 1	1	2	3	6 53	5 34	8 44	8 53	7 2	5 25	8 46	8 52	7 13	5 14	8 49	8 52	7 25	5 2	8 52	8 51	2 44	3	6	9
30 Wed.	13 12	1	2	3	6 52	5 35	9 15	9 57	7 1	5 26	9 15	10 0	7 12	5 15	9 13	10 3	7 24	5 3	9 12	10 7	3 32	3	6	9
31 Thu.	13 22	1	2	3	6 52	5 35	9 47	10 59	7 1	5 27	9 42	11 6	7 11	5 16	9 37	11 12	7 23	5 5	9 31	11 21	4 19	3	6	9

Moon's phases

E.S.T.

	d	h	m
☽	3	11	42
○	11	11	55
☾	20	1	9
●	26	5	26

C.S.T.

	d	h	m
☽	3	10	42
○	11	10	55
☾	20	0	9
●	26	4	26

M.S.T.

	d	h	m
☽	3	9	42
○	11	9	55
☾	19	11	9
●	26	3	26

P.S.T.

	d	h	m
☽	3	8	42
○	11	8	55
☾	19	10	9
●	26	2	26

FEBRUARY 1952

Feb.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Fri.	13 32	1	2	3	6 51	5 36	10 19	.....	7 0	5 28	10 11	.....	7 10	5 18	10 3	.....	7 22	5 6	9 53	.....	5 6	3	6	8
2 Sat.	13 40	1	2	4	6 51	5 37	10 53	0 1	6 59	5 29	10 42	0 10	7 9	5 19	10 29	0 21	7 21	5 8	10 15	0 34	5 53	3	6	8
3 Sun.	13 48	2	3	5	6 50	5 38	11 31	1 1	6 59	5 30	11 17	1 13	7 8	5 20	11 1	1 28	7 19	5 9	10 43	1 44	6 42	3	5	8
4 Mon.	13 55	2	3	5	6 50	5 39	12 13	2 1	6 58	5 31	11 56	2 15	7 7	5 21	11 39	2 32	7 18	5 10	11 18	2 54	7 33	3	5	8
5 Tue.	14 1	2	4	6	6 49	5 40	12 59	2 58	6 57	5 32	12 43	3 14	7 6	5 22	12 22	3 34	7 17	5 12	12 0	3 57	8 25	2	5	7
6 Wed.	14 6	2	5	7	6 48	5 40	1 50	3 51	6 56	5 33	1 34	4 8	7 5	5 24	1 15	4 28	7 16	5 13	12 52	4 52	9 17	2	4	6
7 Thu.	14 10	3	5	7	6 47	5 41	2 46	4 40	6 55	5 34	2 30	4 56	7 4	5 25	2 12	5 16	7 14	5 15	1 50	5 37	10 7	2	3	5
8 Fri.	14 14	3	5	8	6 47	5 42	3 42	5 23	6 54	5 35	3 28	5 38	7 3	5 26	3 13	5 54	7 13	5 16	2 54	6 13	10 55	1	3	4
9 Sat.	14 17	3	5	8	6 46	5 43	4 39	6 1	5 53	5 36	4 28	6 13	7 2	5 27	4 15	6 27	7 12	5 18	4 0	6 43	11 40	1	2	4
10 Sun.	14 19	3	5	8	6 45	5 44	5 36	6 34	6 52	5 37	5 27	6 44	7 1	5 29	5 18	6 55	7 10	5 19	5 7	7 7	.....	1	2	3
11 Mon.	14 20	3	5	8	6 44	5 45	6 31	7 5	6 52	5 38	6 26	7 11	7 0	5 30	6 20	7 19	7 9	5 20	6 13	7 28	0 24	1	2	3
12 Tue.	14 20	3	5	8	6 44	5 45	7 26	7 33	5 51	5 39	7 24	7 37	6 58	5 31	7 21	7 40	7 8	5 22	7 18	7 46	1 6	1	2	3
13 Wed.	14 20	3	5	8	6 43	5 46	8 21	8 0	6 50	5 40	8 22	8 0	6 57	5 32	8 23	8 1	7 6	5 23	8 24	8 2	1 46	1	2	3
14 Thu.	14 19	3	5	8	6 42	5 47	9 17	8 27	6 49	5 41	9 22	8 24	6 56	5 33	9 26	8 22	7 5	5 25	9 31	8 19	2 27	1	2	3
15 Fri.	14 17	3	6	8	6 41	5 48	10 16	8 55	6 48	5 42	10 23	8 50	6 55	5 34	10 31	8 44	7 3	5 26	10 41	8 37	3 9	1	2	3
16 Sat.	14 14	3	6	9	6 40	5 49	11 17	9 26	6 47	5 43	11 28	9 18	6 53	5 36	11 40	9 9	7 2	5 28	11 54	8 56	3 54	1	2	3
17 Sun.	14 11	3	6	9	6 39	5 49	.....	10 1	6 46	5 43	.....	9 50	6 52	5 37	.....	9 37	7 0	5 29	.....	9 21	4 42	1	3	4
18 Mon.	14 7	3	6	9	6 39	5 50	0 22	10 43	6 44	5 45	0 35	10 30	6 51	5 38	0 50	10 13	6 59	5 30	1 9	9 54	5 35	2	4	5
19 Tue.	14 2	3	6	9	6 38	5 51	1 28	11 34	6 43	5 45	1 44	11 18	6 50	5 39	2 3	11 0	6 57	5 32	2 25	10 37	6 33	2	5	7
20 Wed.	13 57	3	5	8	6 37	5 52	2 35	12 35	6 42	5 46	2 52	12 18	6 48	5 40	3 11	11 58	6 56	5 33	3 35	11 34	7 35	3	6	8
21 Thu.	13 51	2	4	7	6 36	5 52	3 38	1 43	6 41	5 47	3 54	1 27	6 47	5 41	4 12	1 9	6 54	5 35	4 35	12 47	8 38	3	6	10
22 Fri.	13 44	2	4	5	6 35	5 53	4 33	2 55	6 40	5 48	4 48	2 42	6 45	5 43	5 4	2 27	6 52	5 36	5 23	2 8	9 41	3	7	10
23 Sat.	13 37	1	3	4	6 34	5 54	5 20	4 9	6 39	5 49	5 31	3 59	6 44	5 44	5 44	3 47	6 51	5 37	5 59	3 34	10 41	3	7	10
24 Sun.	13 29	1	2	4	6 33	5 55	6 1	5 20	6 38	5 50	6 9	5 14	6 43	5 45	6 18	5 7	6 49	5 39	6 28	4 58	11 37	3	6	10
25 Mon.	13 20	1	2	3	6 32	5 55	6 37	6 29	6 36	5 51	6 41	6 27	6 41	5 46	6 46	6 24	6 47	5 40	6 52	6 20	12 29	3	6	9
26 Tue.	13 11	1	2	3	6 31	5 56	7 11	7 36	6 35	5 52	7 11	7 36	6 40	5 47	7 12	7 38	6 46	5 42	7 13	7 39	1 19	3	6	9
27 Wed.	13 1	1	2	3	6 30	5 57	7 43	8 40	6 34	5 53	7 40	8 45	6 38	5 48	7 37	8 51	6 44	5 43	7 33	8 57	2 7	3	6	9
28 Thu.	12 51	1	2	3	6 29	5 58	8 15	9 44	6 33	5 54	8 9	9 52	6 37	5 49	8 2	10 2	6 42	5 44	7 54	10 12	2 55	3	6	9
29 Fri.	12 40	1	2	4	6 28	5 58	8 49	10 47	6 31	5 55	8 40	10 59	6 35	5 50	8 29	11 11	6 41	5 46	8 17	11 26	3 44	3	6	8

Moon's phases

E.S.T.

	d	h	m
☽	2	3	1
○	10	7	28
☾	18	1	1
●	25	4	16

C.S.T.

	d	h	m
☽	2	2	1
○	10	6	28
☾	18	12	1
●	25	3	16

M.S.T.

	d	h	m
☽	2	1	1
○	10	5	28
☾	18	11	1
●	25	2	16

P.S.T.

	d	h	m
☽	2	12	1
○	10	4	28
☾	18	10	1
●	25	1	16

MARCH 1952

Mar.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sat.	12 29	1	3	4	6 26	5 59	9 26	11 49	6 30	5 56	9 14	.....	6 34	5 52	9 0	.....	6 39	5 47	8 42	.....	4 34	3	5	8
2 Sun.	12 17	2	3	5	6 25	6 0	10 7	.....	6 29	5 56	9 53	0 3	6 33	5 53	9 36	0 19	6 37	5 48	9 15	0 39	5 26	3	5	8
3 Mon.	12 5	2	4	6	6 24	6 0	10 53	0 49	6 28	5 57	10 37	1 4	6 31	5 54	10 19	1 23	6 35	5 50	9 56	1 46	6 18	3	5	7
4 Tue.	11 52	2	4	7	6 23	6 1	11 44	1 45	6 26	5 58	11 27	2 1	6 30	5 55	11 8	2 22	6 34	5 51	10 43	2 45	7 10	2	4	6
5 Wed.	11 38	2	5	7	6 22	6 2	12 38	2 36	6 25	5 59	12 22	2 53	6 28	5 56	12 3	3 12	6 32	5 52	11 41	3 34	8 1	2	4	5
6 Thu.	11 24	3	5	8	6 21	6 2	1 34	3 21	6 24	6 0	1 19	3 36	6 26	5 57	1 3	3 54	6 30	5 54	12 44	4 14	8 50	2	3	5
7 Fri.	11 10	3	5	8	6 20	6 3	2 31	4 0	6 22	6 1	2 19	4 13	6 25	5 58	2 5	4 28	6 28	5 55	1 49	4 46	9 37	1	2	4
8 Sat.	10 56	3	5	8	6 19	6 4	3 28	4 36	6 21	6 2	3 18	4 46	6 23	5 59	3 8	4 57	6 26	5 56	2 55	5 12	10 21	1	2	3
9 Sun.	10 41	3	5	8	6 18	6 4	4 24	5 7	6 20	6 2	4 17	5 14	6 22	6 0	4 10	5 23	6 25	5 58	4 2	5 33	11 3	1	2	3
10 Mon.	10 25	3	5	8	6 16	6 5	5 19	5 36	6 18	6 3	5 15	5 40	6 20	6 1	5 12	5 45	6 23	5 59	5 8	5 52	11 44	1	2	3
11 Tue.	10 9	3	5	8	6 15	6 6	6 15	6 3	6 17	6 4	6 14	6 5	6 19	6 2	6 14	6 6	6 21	6 0	6 14	6 9	.....	1	2	3
12 Wed.	9 53	3	5	8	6 14	6 6	7 11	6 30	6 16	6 5	7 14	6 29	6 17	6 3	7 18	6 27	6 19	6 2	7 21	6 26	0 26	1	2	3
13 Thu.	9 37	3	6	8	6 13	6 7	8 10	6 58	6 14	6 6	8 16	6 54	6 16	6 4	8 23	6 49	6 17	6 3	8 31	6 44	1 8	1	2	3
14 Fri.	9 20	3	6	9	6 12	6 8	9 11	7 29	6 13	6 7	9 20	7 21	6 14	6 5	9 31	7 12	6 15	6 4	9 43	7 3	1 52	1	2	3
15 Sat.	9 4	3	6	9	6 10	6 8	10 15	8 2	6 11	6 7	10 27	7 52	6 12	6 6	10 41	7 40	6 13	6 6	10 58	7 26	2 40	1	3	4
16 Sun.	8 47	3	6	9	6 9	6 9	11 20	8 43	6 10	6 8	11 35	8 29	6 11	6 7	11 53	8 14	6 12	6 7	.....	7 56	3 32	2	3	5
17 Mon.	8 29	3	6	8	6 8	6 9	.....	9 30	6 9	6 9	.....	9 15	6 9	6 8	.....	8 57	6 10	6 8	0 14	8 35	4 27	2	4	6
18 Tue.	8 12	3	5	8	6 7	6 10	0 26	10 26	6 7	6 10	0 42	10 10	6 8	6 10	1 2	9 50	6 8	6 9	1 26	9 27	5 27	3	5	8
19 Wed.	7 54	2	5	7	6 6	6 11	1 29	11 30	6 6	6 11	1 45	11 14	6 6	6 11	2 4	10 55	6 6	6 11	2 28	10 31	6 28	3	6	9
20 Thu.	7 36	2	4	6	6 4	6 11	2 25	12 40	6 4	6 12	2 40	12 24	6 4	6 12	2 57	12 8	6 4	6 12	3 19	11 48	7 29	3	6	10
21 Fri.	7 18	2	3	5	6 3	6 12	3 13	1 50	6 3	6 12	3 25	1 38	6 3	6 13	3 40	1 25	6 2	6 13	3 58	1 9	8 29	3	6	10
22 Sat.	7 0	1	3	4	6 2	6 13	3 55	3 0	6 2	6 13	4 4	2 52	6 1	6 14	4 15	2 43	6 0	6 15	4 28	2 32	9 24	3	6	9
23 Sun.	6 42	1	2	3	6 1	6 13	4 32	4 8	6 0	6 14	4 38	4 4	5 59	6 15	4 45	3 59	5 58	6 16	4 53	3 53	10 16	3	6	9
24 Mon.	6 24	1	2	3	6 0	6 14	5 7	5 15	5 59	6 15	5 9	5 13	5 58	6 16	5 11	5 13	5 57	6 17	5 15	5 12	11 6	3	6	9
25 Tue.	6 6	1	2	3	5 58	6 14	5 39	6 20	5 57	6 15	5 38	6 22	5 56	6 17	5 36	6 26	5 55	6 18	5 35	6 29	11 55	3	6	9
26 Wed.	5 48	1	2	3	5 57	6 15	6 11	7 24	5 56	6 16	6 6	7 30	5 55	6 18	6 1	7 38	5 53	6 20	5 55	7 46	12 43	3	6	9
27 Thu.	5 30	1	2	3	5 56	6 16	6 44	8 28	5 55	6 17	6 37	8 38	5 53	6 19	6 28	8 49	5 51	6 21	6 17	9 3	1 32	3	6	9
28 Fri.	5 12	1	3	4	5 55	6 16	7 20	9 32	5 53	6 18	7 9	9 45	5 51	6 20	6 57	9 59	5 49	6 22	6 42	10 18	2 23	3	6	8
29 Sat.	4 53	2	3	5	5 53	6 17	8 0	10 34	5 52	6 19	7 47	10 49	5 50	6 21	7 31	11 7	5 47	6 23	7 12	11 29	3 15	3	5	8
30 Sun.	4 35	2	4	6	5 52	6 17	8 45	11 33	5 50	6 20	8 30	11 51	5 48	6 22	8 13	.....	5 45	6 25	7 50	.....	4 8	2	5	7
31 Mon.	4 17	2	4	6	5 51	6 18	9 35	.....	5 49	6 20	9 19	.....	5 46	6 23	9 0	0 9	5 43	6 26	8 36	0 31	5 1	2	4	6

Moon's phases

E.S.T.

	d	h	m
☽	3	8	43
○	11	1	14
☾	18	9	40
●	25	3	12

C.S.T.

	d	h	m
☽	3	7	43
○	11	12	14
☾	18	8	40
●	25	2	12

M.S.T.

	d	h	m
☽	3	6	43
○	11	11	14
☾	18	7	40
●	25	1	12

P.S.T.

	d	h	m
☽	3	5	43
○	11	10	14
☾	18	6	40
●	25	12	12

APRIL 1952

Apr.	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Tue.	3 59	2	5	7	5 50	6 19	10 28	0 27	5 48	6 21	10 12	0 44	5 45	6 24	9 53	1 4	5 42	6 27	9 30	1 27	5 53	2	4	6
2 Wed.	3 41	3	5	8	5 49	6 19	11 24	1 16	5 46	6 22	11 9	1 32	5 43	6 25	10 52	1 49	5 40	6 28	10 31	2 11	6 43	2	3	5
3 Thu.	3 23	3	5	8	5 47	6 20	12 21	1 58	5 45	6 23	12 8	2 11	5 42	6 26	11 53	2 27	5 38	6 30	11 36	2 46	7 31	1	3	4
4 Fri.	3 6	3	5	8	5 46	6 20	1 18	2 34	5 43	6 23	1 7	2 45	5 40	6 27	12 55	2 59	5 36	6 31	12 41	3 14	8 16	1	2	3
5 Sat.	2 48	3	5	8	5 45	6 21	2 14	3 6	5 42	6 24	2 6	3 16	5 38	6 28	1 58	3 25	5 34	6 32	1 48	3 36	8 59	1	2	3
6 Sun.	2 31	3	5	8	5 44	6 22	3 9	3 36	5 41	6 25	3 4	3 42	5 37	6 29	3 0	3 49	5 32	6 34	2 54	3 57	9 40	1	2	3
7 Mon.	2 14	3	5	8	5 43	6 22	4 5	4 4	5 39	6 26	4 3	4 7	5 35	6 30	4 1	4 10	5 30	6 35	4 0	4 15	10 22	1	2	3
8 Tue.	1 57	3	5	8	5 42	6 23	5 1	4 32	5 38	6 27	5 3	4 31	5 34	6 31	5 5	4 31	5 29	6 36	5 7	4 32	11 4	1	2	3
9 Wed.	1 40	3	6	8	5 40	6 23	6 0	4 59	5 37	6 27	6 4	4 56	5 32	6 32	6 10	4 53	5 27	6 37	6 17	4 49	11 48	1	2	3
10 Thu.	1 24	3	6	9	5 39	6 24	7 1	5 30	5 35	6 28	7 9	5 23	5 31	6 33	7 18	5 16	5 25	6 39	7 30	5 8	.....	1	2	3
11 Fri.	1 7	3	6	9	5 38	6 25	8 5	6 3	5 34	6 29	8 16	5 54	5 29	6 34	8 29	5 42	5 23	6 40	8 45	5 30	0 35	1	3	4
12 Sat.	0 51	3	6	9	5 37	6 25	9 11	6 41	5 33	6 30	9 25	6 30	5 27	6 35	9 42	6 15	5 21	6 41	10 3	5 58	1 26	2	3	5
13 Sun.	0 36	3	6	8	5 36	6 26	10 18	7 28	5 31	6 31	10 35	7 13	5 26	6 36	10 53	6 56	5 20	6 42	11 16	6 35	2 22	2	4	6
14 Mon.	0 20	2	5	7	5 35	6 26	11 22	8 21	5 30	6 31	11 39	8 5	5 24	6 37	11 58	7 46	5 18	6 44	.....	7 23	3 21	2	5	7
15 Tue.	FAST	2	4	7	5 34	6 27	.....	9 24	5 29	6 32	.....	9 8	5 23	6 38	.....	8 48	5 16	6 45	0 22	8 25	4 23	3	6	9
16 Wed.	0 9	2	4	6	5 33	6 28	0 21	10 31	5 27	6 33	0 36	10 16	5 21	6 39	0 54	9 59	5 14	6 46	1 16	9 37	5 24	3	6	9
17 Thu.	0 23	2	3	5	5 31	6 28	1 11	11 40	5 26	6 34	1 25	11 28	5 20	6 40	1 40	11 14	5 13	6 47	1 57	10 57	6 23	3	6	9
18 Fri.	0 37	1	3	4	5 30	6 29	1 54	12 49	5 25	6 35	2 4	12 40	5 18	6 41	2 16	12 29	5 11	6 49	2 30	12 17	7 18	3	6	9
19 Sat.	0 50	1	2	3	5 29	6 29	2 31	1 56	5 24	6 35	2 38	1 50	5 17	6 42	2 47	1 43	5 9	6 50	2 57	1 36	8 10	3	6	9
20 Sun.	1 3	1	2	3	5 28	6 30	3 6	3 0	5 22	6 36	3 9	2 58	5 16	6 43	3 13	2 56	5 8	6 51	3 18	2 53	8 59	3	6	9
21 Mon.	1 16	1	2	3	5 27	6 31	3 37	4 4	5 21	6 37	3 38	4 6	5 14	6 44	3 38	4 8	5 6	6 52	3 38	4 9	9 47	3	6	9
22 Tue.	1 28	1	2	3	5 26	6 31	4 9	5 7	5 20	6 38	4 6	5 12	5 13	6 45	4 2	5 18	5 4	6 54	3 58	5 25	10 34	3	6	9
23 Wed.	1 39	1	2	3	5 25	6 32	4 41	6 11	5 19	6 39	4 34	6 19	5 11	6 46	4 28	6 29	5 2	6 55	4 20	6 40	11 22	3	6	9
24 Thu.	1 51	1	3	4	5 24	6 33	5 16	7 15	5 17	6 39	5 6	7 26	5 10	6 47	4 55	7 39	5 1	6 56	4 43	7 54	12 12	3	6	9
25 Fri.	2 1	2	3	5	5 23	6 33	5 54	8 18	5 16	6 40	5 41	8 32	5 8	6 48	5 28	8 49	4 59	6 58	5 10	9 8	1 3	3	6	8
26 Sat.	2 11	2	4	5	5 22	6 34	6 37	9 19	5 15	6 41	6 23	9 36	5 7	6 49	6 5	9 54	4 58	6 59	5 45	10 16	1 56	3	5	7
27 Sun.	2 21	2	4	6	5 21	6 34	7 25	10 17	5 14	6 42	7 10	10 34	5 6	6 50	6 51	10 53	4 56	7 0	6 27	11 16	2 50	2	4	6
28 Mon.	2 30	2	5	7	5 20	6 35	8 17	11 8	5 13	6 43	8 2	11 23	5 4	6 51	7 43	11 42	4 54	7 1	7 20	.....	3 43	2	4	5
29 Tue.	2 39	3	5	8	5 19	6 36	9 13	11 52	5 12	6 43	8 58	.....	5 3	6 52	8 40	.....	4 53	7 2	8 18	0 4	4 34	2	3	5
30 Wed.	2 47	3	5	8	5 18	6 36	10 10	.....	5 11	6 44	9 56	0 6	5 2	6 53	9 41	0 23	4 51	7 4	9 22	0 43	5 23	2	3	4

Moon's phases

E.S.T.

	d	h	m
☽	2	3	48
○	10	3	53
☾	17	4	7
●	24	2	27

C.S.T.

	d	h	m
☽	2	2	48
○	10	2	53
☾	17	3	7
●	24	1	27

M.S.T.

	d	h	m
☽	2	1	48
○	10	1	53
☾	17	2	7
●	24	0	27

P.S.T.

	d	h	m
☽	2	0	48
○	10	0	53
☾	17	1	7
●	23	11	27

May	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Thu.	2 55	3	5	8	5 18	6 37	11 7	0 31	5 10	6 45	10 56	0 43	5 1	6 54	10 43	0 57	4 50	7 5	10 28	1 13	6 9	1	2	4
2 Fri.	3 2	3	5	8	5 17	6 38	12 3	1 5	5 9	6 46	11 54	1 15	4 59	6 55	11 45	1 25	4 48	7 6	11 33	1 39	6 53	1	2	3
3 Sat.	3 9	3	5	8	5 16	6 38	12 58	1 36	5 8	6 47	12 52	1 42	4 58	6 56	12 46	1 51	4 47	7 7	12 39	2 0	7 35	1	2	3
4 Sun.	3 15	3	5	8	5 15	6 39	1 53	2 4	5 7	6 48	1 50	2 8	4 57	6 57	1 47	2 12	4 45	7 9	1 44	2 18	8 16	1	2	3
5 Mon.	3 20	3	5	8	5 14	6 40	2 49	2 31	5 6	6 48	2 49	2 32	4 56	6 58	2 49	2 33	4 44	7 10	2 50	2 36	8 57	1	2	3
6 Tue.	3 25	3	5	8	5 13	6 40	3 46	2 59	5 5	6 49	3 49	2 57	4 54	6 59	3 54	2 55	4 43	7 11	3 58	2 53	9 40	1	2	3
7 Wed.	3 30	3	6	9	5 12	6 41	4 46	3 28	5 4	6 50	4 53	3 23	4 53	7 0	5 0	3 17	4 41	7 12	5 9	3 11	10 26	1	2	3
8 Thu.	3 34	3	6	9	5 12	6 42	5 50	4 0	5 3	6 51	5 59	3 51	4 52	7 1	6 10	3 42	4 40	7 14	6 24	3 31	11 16	1	2	4
9 Fri.	3 37	3	6	9	5 11	6 42	6 56	4 37	5 2	6 52	7 9	4 25	4 51	7 2	7 24	4 13	4 39	7 15	7 42	3 58	.....	2	3	5
10 Sat.	3 40	3	6	9	5 10	6 43	8 4	5 21	5 1	6 52	8 21	5 7	4 50	7 3	8 39	4 51	4 37	7 16	9 0	4 32	0 11	2	4	6
11 Sun.	3 42	3	5	8	5 9	6 43	9 12	6 13	5 0	6 53	9 29	5 57	4 49	7 4	9 48	5 39	4 36	7 17	10 11	5 17	1 10	2	5	7
12 Mon.	3 44	2	4	6	5 9	6 44	10 14	7 15	4 59	6 54	10 30	6 59	4 48	7 5	10 49	6 38	4 35	7 18	11 10	6 15	2 13	3	6	8
13 Tue.	3 45	2	3	5	5 8	6 45	11 8	8 22	4 58	6 55	11 22	8 7	4 47	7 6	11 39	7 49	4 34	7 19	11 58	7 27	3 16	3	6	9
14 Wed.	3 45	2	3	5	5 7	6 45	11 53	9 32	4 57	6 56	.....	9 19	4 46	7 7	.....	9 4	4 32	7 21	.....	8 46	4 17	3	6	9
15 Thu.	3 45	1	3	4	5 7	6 46	.....	10 41	4 57	6 56	0 5	10 32	4 45	7 8	0 17	10 20	4 31	7 22	0 32	10 7	5 14	3	6	9
16 Fri.	3 44	1	2	3	5 6	6 47	0 32	11 49	4 56	6 57	0 41	11 42	4 44	7 9	0 50	11 34	4 30	7 23	1 0	11 26	6 7	3	6	9
17 Sat.	3 43	1	2	3	5 6	6 47	1 8	12 53	4 55	6 58	1 12	12 50	4 43	7 10	1 17	12 47	4 29	7 24	1 23	12 43	6 57	3	6	9
18 Sun.	3 41	1	2	3	5 5	6 48	1 39	1 56	4 54	6 59	1 41	1 57	4 42	7 11	1 42	1 57	4 28	7 25	1 44	1 57	7 44	3	6	9
19 Mon.	3 39	1	2	3	5 4	6 49	2 9	2 58	4 54	6 59	2 8	3 2	4 42	7 12	2 6	3 6	4 27	7 26	2 3	3 11	8 30	3	6	9
20 Tue.	3 36	1	2	3	5 4	6 49	2 41	4 0	4 53	7 0	2 36	4 8	4 41	7 13	2 30	4 15	4 26	7 27	2 23	4 24	9 17	3	6	9
21 Wed.	3 32	1	2	4	5 3	6 50	3 14	5 3	4 52	7 1	3 6	5 13	4 40	7 13	2 57	5 24	4 25	7 28	2 45	5 38	10 5	3	6	9
22 Thu.	3 28	1	3	4	5 3	6 51	3 50	6 5	4 52	7 2	3 40	6 18	4 39	7 14	3 27	6 33	4 24	7 29	3 11	6 52	10 55	3	6	8
23 Fri.	3 23	2	3	5	5 2	6 51	4 31	7 7	4 51	7 2	4 18	7 22	4 38	7 15	4 1	7 40	4 23	7 30	3 43	8 1	11 47	3	5	8
24 Sat.	3 18	2	4	6	5 2	6 52	5 17	8 6	4 51	7 3	5 2	8 22	4 38	7 16	4 43	8 41	4 22	7 31	4 22	9 3	12 40	2	5	7
25 Sun.	3 12	2	5	7	5 2	6 52	6 8	8 59	4 50	7 4	5 52	9 16	4 37	7 17	5 33	9 35	4 21	7 32	5 10	9 56	1 34	2	4	6
26 Mon.	3 6	2	5	7	5 1	6 53	7 3	9 46	4 50	7 4	6 47	10 1	4 36	7 18	6 29	10 19	4 21	7 33	6 7	10 39	2 26	2	3	5
27 Tue.	3 0	3	5	8	5 1	6 54	8 0	10 28	4 49	7 5	7 45	10 40	4 36	7 19	7 29	10 55	4 20	7 34	7 10	11 13	3 16	1	3	4
28 Wed.	2 53	3	5	8	5 0	6 54	8 57	11 4	4 49	7 6	8 45	11 14	4 35	7 19	8 31	11 26	4 19	7 35	8 15	11 40	4 3	1	2	3
29 Thu.	2 45	3	5	8	5 0	6 55	9 53	11 35	4 48	7 6	9 44	11 43	4 35	7 20	9 33	11 52	4 18	7 36	9 20	.....	4 48	1	2	3
30 Fri.	2 37	3	5	8	5 0	6 55	10 48	....	4 48	7 7	10 42	.....	4 34	7 21	10 34	.....	4 18	7 37	10 25	0 2	5 30	1	2	3
31 Sat.	2 29	3	5	7	5 0	6 56	11 42	0 4	4 48	7 8	11 39	0 9	4 34	7 22	11 34	0 15	4 17	7 38	11 29	0 22	6 10	1	2	3

Moon's phases

E.S.T.

	d	h	m
☽	1	10	58
○	9	3	16
☾	16	9	39
●	23	2	28
☽	31	4	46

C.S.T.

	d	h	m
☽	1	9	58
○	9	2	16
☾	16	8	39
●	23	1	28
☽	31	3	36

M.S.T.

	d	h	m
☽	1	8	58
○	9	1	16
☾	16	7	39
●	23	12	28
☽	31	2	36

P.S.T.

	d	h	m
☽	1	7	58
○	9	12	16
☾	16	6	39
●	23	11	28
☽	31	1	36

JUNE 1952

June	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sun.	2 20	3	5	8	4 59	6 56	12 37	0 31	4 47	7 8	12 36	0 33	4 33	7 22	12 35	0 36	4 17	7 39	12 34	0 39	6 51	1	2	2
2 Mon.	2 11	3	5	8	4 59	6 57	1 33	0 58	4 47	7 9	1 34	0 57	4 33	7 23	1 37	0 56	4 16	7 40	1 40	0 56	7 32	1	2	3
3 Tue.	2 1	3	6	8	4 59	6 57	2 30	1 26	4 47	7 10	2 35	1 22	4 32	7 24	2 41	1 18	4 16	7 41	2 49	1 14	8 16	1	2	3
4 Wed.	1 51	3	6	9	4 59	6 58	3 31	1 56	4 46	7 10	3 40	1 49	4 32	7 24	3 50	1 42	4 15	7 41	4 1	1 33	9 4	1	2	3
5 Thu.	1 41	3	6	9	4 59	6 58	4 36	2 30	4 46	7 11	4 48	2 20	4 32	7 25	5 1	2 9	4 15	7 42	5 17	1 56	9 56	1	3	4
6 Fri.	1 30	3	6	9	4 58	6 59	5 44	3 11	4 46	7 11	5 59	2 58	4 31	7 26	6 15	2 44	4 14	7 43	6 36	2 27	10 54	2	3	5
7 Sat.	1 19	3	6	8	4 58	6 59	6 53	4 0	4 46	7 12	7 10	3 44	4 31	7 26	7 29	3 27	4 14	7 44	7 51	3 6	11 57	2	4	7
8 Sun.	1 8	2	5	7	4 58	7 0	8 0	4 59	4 46	7 12	8 16	4 42	4 31	7 27	8 35	4 23	4 14	7 44	8 58	4 0	.....	3	5	8
9 Mon.	0 57	2	4	6	4 58	7 0	8 59	6 6	4 45	7 13	9 13	5 49	4 31	7 27	9 31	5 31	4 13	7 45	9 51	5 8	1 2	3	6	9
10 Tue.	0 45	2	3	5	4 58	7 0	9 48	7 17	4 45	7 13	10 1	7 3	4 31	7 28	10 15	6 46	4 13	7 46	10 32	6 27	2 6	3	7	10
11 Wed.	0 33	1	3	4	4 58	7 1	10 31	8 30	4 45	7 14	10 40	8 18	4 30	7 28	10 50	8 5	4 13	7 46	11 2	7 50	3 6	3	6	10
12 Thu.	0 21	1	2	3	4 58	7 1	11 8	9 39	4 45	7 14	11 14	9 32	4 30	7 29	11 20	9 23	4 13	7 47	11 28	9 13	4 2	3	6	9
13 Fri.	0 9	1	2	3	4 58	7 2	11 41	10 46	4 45	7 14	11 44	10 42	4 30	7 29	11 46	10 37	4 13	7 47	11 49	10 32	4 53	3	6	9
14 Sat.	SLOW	1	2	3	4 58	7 2	.....	11 50	4 45	7 15	.....	11 50	4 30	7 30	.....	11 49	4 13	7 48	.....	11 48	5 42	3	6	9
15 Sun.	0 16	1	2	3	4 58	7 2	0 12	12 53	4 45	7 15	0 12	12 56	4 30	7 30	0 10	12 58	4 12	7 48	0 9	1 2	6 29	3	6	9
16 Mon.	0 29	1	2	3	4 58	7 2	0 44	1 54	4 45	7 16	0 39	2 1	4 30	7 31	0 34	2 7	4 12	7 48	0 28	2 15	7 15	3	6	8
17 Tue.	0 42	1	2	3	4 59	7 3	1 16	2 56	4 45	7 16	1 8	3 5	4 30	7 31	1 0	3 15	4 12	7 49	0 50	3 28	8 2	3	6	8
18 Wed.	0 55	1	3	4	4 59	7 3	1 51	3 58	4 46	7 16	1 40	4 9	4 30	7 31	1 29	4 24	4 13	7 49	1 15	4 40	8 50	3	6	8
19 Thu.	1 8	2	3	5	4 59	7 3	2 29	4 58	4 46	7 17	2 15	5 13	4 31	7 32	2 1	5 30	4 13	7 50	1 43	5 51	9 41	3	5	8
20 Fri.	1 21	2	4	6	4 59	7 4	3 13	5 58	4 46	7 17	2 58	6 14	4 31	7 32	2 40	6 33	4 13	7 50	2 19	6 55	10 34	2	5	7
21 Sat.	1 34	2	4	6	4 59	7 4	4 2	6 54	4 46	7 17	3 46	7 9	4 31	7 32	3 28	7 28	4 13	7 50	3 4	7 51	11 27	2	4	6
22 Sun.	1 47	2	5	7	4 59	7 4	4 56	7 42	4 46	7 17	4 40	7 58	4 31	7 32	4 21	8 16	4 13	7 50	3 58	8 37	12 20	2	3	5
23 Mon.	2 1	3	5	8	5 0	7 4	5 52	8 25	4 47	7 17	5 36	8 38	4 31	7 32	5 20	8 54	4 13	7 50	4 59	9 13	1 11	1	3	4
24 Tue.	2 14	3	5	8	5 0	7 5	6 49	9 3	4 47	7 18	6 36	9 14	4 32	7 33	6 21	9 27	4 14	7 51	6 3	9 42	1 59	1	2	3
25 Wed.	2 26	3	5	8	5 0	7 5	7 45	9 35	4 47	7 18	7 35	9 45	4 32	7 33	7 23	9 54	4 14	7 51	7 9	10 5	2 44	1	2	3
26 Thu.	2 39	3	5	7	5 0	7 5	8 40	10 5	4 47	7 18	8 33	10 11	4 32	7 33	8 24	10 18	4 14	7 51	8 14	10 26	3 26	1	2	3
27 Fri.	2 52	3	5	7	5 1	7 5	9 35	10 32	4 48	7 18	9 30	10 36	4 33	7 33	9 24	10 39	4 15	7 51	9 18	10 44	4 7	1	2	2
28 Sat.	3 4	3	5	7	5 1	7 5	10 28	10 59	4 48	7 18	10 27	10 59	4 33	7 33	10 24	10 59	4 15	7 51	10 21	11 0	4 47	1	2	3
29 Sun.	3 16	3	5	8	5 1	7 5	11 22	11 26	4 48	7 18	11 23	11 23	4 34	7 33	11 25	11 20	4 16	7 51	11 26	11 17	5 27	1	2	3
30 Mon.	3 28	3	5	8	5 2	7 5	12 18	11 54	4 49	7 18	12 22	11 49	4 34	7 33	12 26	11 42	4 16	7 50	12 32	11 35	6 9	1	2	3

Moon's phases

E.S.T.

	d	h	m
○	8	0	7
☾	14	13	28
●	22	3	45
☽	30	8	11

C.S.T.

	d	h	m
○	7	11	7
☾	14	2	28
●	22	2	45
☽	30	7	11

M.S.T.

	d	h	m
○	7	10	7
☾	14	1	28
●	22	1	45
☽	30	6	11

P.S.T.

	d	h	m
○	7	9	7
☾	14	12	28
●	22	0	45
☽	30	5	11

JULY 1952

July	Sun slow	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Tue.	3 40	3	6	8	5 2	7 5	1 16	.....	4 49	7 18	1 23	.....	4 34	7 33	1 31	.....	4 17	7 50	1 41	11 55	6 54	1	2	3
2 Wed.	3 52	3	6	9	5 2	7 5	2 18	0 25	4 50	7 18	2 28	0 17	4 35	7 33	2 40	0 7	4 17	7 50	2 54	.....	7 43	1	2	4
3 Thu.	4 3	3	6	9	5 3	7 5	3 23	1 2	4 50	7 18	3 36	0 50	4 35	7 32	3 51	0 37	4 18	7 50	4 9	0 22	8 37	2	3	4
4 Fri	4 14	3	6	9	5 3	7 5	4 31	1 46	4 51	7 17	4 46	1 32	4 36	7 32	5 5	1 16	4 18	7 50	5 27	0 57	9 36	2	4	6
5 Sat.	4 24	3	5	8	5 4	7 5	5 38	2 39	4 51	7 17	5 56	2 23	4 37	7 32	6 15	2 5	4 19	7 49	6 38	1 43	10 40	2	5	7
6 Sun	4 34	2	4	7	5 4	7 5	6 42	3 43	4 51	7 17	6 58	3 26	4 37	7 32	7 16	3 7	4 20	7 49	7 38	2 43	11 46	3	6	9
7 Mon.	4 44	2	4	5	5 5	7 4	7 38	4 53	4 52	7 17	7 52	4 38	4 38	7 31	8 7	4 21	4 20	7 49	8 26	3 59	.....	3	7	10
8 Tue.	4 54	1	3	4	5 5	7 4	8 25	6 7	4 53	7 17	8 35	5 55	4 38	7 31	8 47	5 41	4 21	7 48	9 1	5 23	0 50	3	7	10
9 Wed.	5 3	1	2	4	5 6	7 4	9 5	7 21	4 53	7 16	9 12	7 12	4 39	7 31	9 20	7 1	4 22	7 48	9 29	6 49	1 49	3	7	10
10 Thu.	5 11	1	2	3	5 6	7 4	9 41	8 32	4 54	7 16	9 44	8 26	4 40	7 30	9 48	8 20	4 23	7 47	9 52	8 13	2 45	3	6	9
11 Fri.	5 19	1	2	3	5 7	7 4	10 13	9 40	4 54	7 16	10 13	9 37	4 40	7 30	10 13	9 35	4 24	7 47	10 13	9 33	3 36	3	6	9
12 Sat.	5 27	1	2	3	5 7	7 3	10 45	10 44	4 55	7 16	10 42	10 46	4 41	7 29	10 38	10 48	4 24	7 46	10 33	10 50	4 25	3	6	9
13 Sun.	5 35	1	2	3	5 8	7 3	11 17	11 47	4 56	7 15	11 10	11 52	4 42	7 29	11 4	11 58	4 25	7 45	10 55	12 5	5 12	3	6	9
14 Mon.	5 42	1	2	4	5 8	7 3	11 52	12 49	4 56	7 15	11 42	12 58	4 42	7 28	11 31	1 7	4 26	7 45	11 17	1 19	5 59	3	6	9
15 Tue.	5 48	2	3	4	5 9	7 3	.....	1 52	4 57	7 14	.....	2 3	4 43	7 28	.....	2 16	4 27	7 44	11 45	2 32	6 48	3	6	8
16 Wed.	5 54	2	3	5	5 9	7 2	0 30	2 53	4 57	7 14	0 17	3 7	4 44	7 27	0 1	3 23	4 28	7 43	.....	3 43	7 38	3	5	8
17 Thu.	6 0	2	4	5	5 10	7 2	1 12	3 53	4 58	7 13	0 56	4 9	4 45	7 27	0 39	4 27	4 29	7 43	0 19	4 48	8 30	2	5	7
18 Fri.	6 5	2	4	6	5 10	7 1	1 59	4 49	4 59	7 13	1 43	5 6	4 46	7 26	1 24	5 25	4 30	7 42	1 1	5 47	9 23	2	4	6
19 Sat.	6 9	2	5	7	5 11	7 1	2 50	5 39	4 59	7 12	2 34	5 55	4 46	7 25	2 16	6 14	4 31	7 41	1 53	6 36	10 15	2	4	5
20 Sun.	6 13	3	5	7	5 11	7 0	3 46	6 24	5 0	7 12	3 30	6 38	4 47	7 25	3 12	6 55	4 32	7 40	2 51	7 15	11 6	2	3	4
21 Mon.	6 16	3	5	8	5 12	7 0	4 42	7 3	5 1	7 11	4 28	7 15	4 48	7 24	4 13	7 29	4 33	7 39	3 54	7 45	11 55	1	2	4
22 Tue.	6 19	3	5	8	5 13	6 59	5 39	7 37	5 2	7 11	5 28	7 47	4 49	7 23	5 15	7 57	4 34	7 38	5 0	8 11	12 41	1	2	3
23 Wed.	6 21	3	5	8	5 13	6 59	6 34	8 8	5 2	7 10	6 26	8 14	4 50	7 22	6 17	8 23	4 35	7 37	6 5	8 32	1 25	1	2	3
24 Thu.	6 23	2	5	7	5 14	6 58	7 29	8 35	5 3	7 9	7 24	8 48	4 51	7 22	7 17	8 44	4 36	7 36	7 9	8 50	2 6	1	2	3
25 Fri.	6 24	3	5	7	5 14	6 58	8 23	9 1	5 4	7 9	8 20	9 3	4 51	7 21	8 16	9 5	4 37	7 35	8 13	9 6	2 46	1	2	3
26 Sat.	6 24	3	5	7	5 15	6 57	9 16	9 28	5 4	7 8	9 16	9 27	4 52	7 20	9 16	9 25	4 38	7 34	9 16	9 23	3 26	1	2	3
27 Sun.	6 24	3	5	8	5 15	6 57	10 10	9 55	5 5	7 7	10 13	9 50	4 53	7 19	10 17	9 46	4 39	7 33	10 21	9 40	4 6	1	2	3
28 Mon.	6 23	3	5	8	5 16	6 56	11 6	10 25	5 6	7 6	11 12	10 17	4 54	7 18	11 19	10 9	4 40	7 32	11 27	10 0	4 48	1	2	3
29 Tue.	6 22	3	6	8	5 17	6 55	12 5	10 58	5 7	7 6	12 14	10 47	4 55	7 17	12 24	10 36	4 41	7 31	12 37	10 22	5 34	1	3	4
30 Wed.	6 20	3	6	9	5 17	6 55	1 7	11 37	5 7	7 5	1 19	11 24	4 56	7 16	1 33	11 9	4 42	7 30	1 49	10 52	6 25	2	3	5
31 Thu.	6 17	3	6	9	5 18	6 54	2 12	.....	5 8	7 4	2 26	.....	4 57	7 15	2 44	11 52	4 43	7 28	3 4	11 31	7 2[illegible]	2	4	6

Moon's phases

E.S.T.

	d	h	m
○	7	7	33
☾	13	10	42
●	21	6	30
☽	29	8	51

C.S.T.

	d	h	m
○	7	6	33
☾	13	9	42
●	21	5	30
☽	29	7	51

M.S.T.

	d	h	m
○	7	5	33
☾	13	8	42
●	21	4	30
☽	29	6	51

P.S.T.

	d	h	m
○	7	4	33
☾	13	7	42
●	21	3	30
☽	29	5	51

AUGUST 1952

Aug.	Sun slow	a-factor, moonrise 90°	105°	120°	LOCAL CIVIL TIME Latitude 30° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 35° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 40° n. Sun-rise	Sun-set	Moon-rise	Moon-set	LOCAL CIVIL TIME Latitude 45° n. Sun-rise	Sun-set	Moon-rise	Moon-set	Moon's upper transit	a-factor, moonset 90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Fri.	6 14	3	5	8	5 18	6 53	3 18	0 24	5 9	7 3	3 35	0 9	4 58	7 14	3 54	.....	4 45	7 27	4 17	.....	8 21	2	4	6
2 Sat.	6 10	2	5	7	5 19	6 53	4 23	1 21	5 9	7 2	4 39	1 5	4 59	7 13	4 58	0 46	4 46	7 26	5 21	0 23	9 24	3	5	8
3 Sun.	6 6	2	4	6	5 20	6 52	5 22	2 28	5 10	7 1	5 37	2 12	5 0	7 12	5 54	1 54	4 47	7 24	6 14	1 30	10 29	3	6	9
4 Mon.	6 1	2	3	5	5 20	6 51	6 12	3 41	5 11	7 0	6 25	3 26	5 0	7 11	6 39	3 10	4 48	7 23	6 55	2 51	11 31	3	7	10
5 Tue.	5 55	1	3	4	5 21	6 50	6 56	4 55	5 12	6 59	7 5	4 44	5 1	7 10	7 16	4 31	4 49	7 22	7 27	4 16	.....	3	7	10
6 Wed.	5 49	1	2	3	5 22	6 49	7 35	6 9	5 12	6 58	7 41	6 1	5 2	7 8	7 47	5 53	4 50	7 20	7 53	5 43	0 29	3	7	10
7 Thu.	5 42	1	2	3	5 22	6 49	8 10	7 19	5 13	6 57	8 12	7 16	5 3	7 7	8 13	7 12	4 51	7 19	8 15	7 7	1 23	3	6	9
8 Fri.	5 34	1	2	3	5 23	6 48	8 43	8 27	5 14	6 56	8 41	8 28	5 4	7 6	8 39	8 27	4 53	7 18	8 36	8 27	2 15	3	6	9
9 Sat.	5 26	1	2	3	5 23	6 47	9 16	9 34	5 15	6 55	9 11	9 37	5 5	7 5	9 5	9 41	4 54	7 16	8 58	9 46	3 4	3	6	9
10 Sun.	5 17	1	2	4	5 24	6 46	9 51	10 38	5 16	6 54	9 42	10 45	5 6	7 4	9 32	10 54	4 55	7 15	9 21	11 4	3 53	3	6	9
11 Mon.	5 8	1	3	4	5 25	6 45	10 28	11 42	5 16	6 53	10 16	11 53	5 7	7 2	10 3	12 5	4 56	7 13	9 47	12 18	4 43	3	6	9
12 Tue.	4 58	2	3	5	5 25	6 44	11 9	12 46	5 17	6 52	10 55	12 58	5 8	7 1	10 39	1 14	4 57	7 12	10 20	1 33	5 33	3	5	8
13 Wed.	4 48	2	4	6	5 26	6 43	11 55	1 46	5 18	6 51	11 40	2 1	5 9	7 0	11 32	2 19	4 59	7 10	11 0	2 41	6 25	3	5	8
14 Thu.	4 37	2	4	6	5 26	6 42	.....	2 44	5 19	6 50	.....	3 1	5 10	6 59	.....	3 19	5 0	7 9	11 47	3 42	7 19	2	4	7
15 Fri.	4 26	2	4	7	5 27	6 41	0 46	3 36	5 19	6 49	0 29	3 53	5 11	6 57	0 11	4 12	5 1	7 7	.....	4 34	8 12	2	4	6
16 Sat.	4 14	2	5	7	5 28	6 40	1 40	4 23	5 20	6 48	1 24	4 37	5 12	6 56	1 6	4 56	5 2	7 5	0 44	5 16	9 3	2	3	5
17 Sun.	4 2	3	5	8	5 28	6 39	2 37	5 3	5 21	6 46	2 22	5 16	5 13	6 54	2 6	5 31	5 3	7 4	1 46	5 49	9 52	1	3	4
18 Mon.	3 49	3	5	8	5 29	6 38	3 33	5 39	5 22	6 45	3 21	5 49	5 14	6 53	3 7	6 1	5 5	7 2	2 51	6 16	10 39	1	2	3
19 Tue.	3 35	3	5	8	5 29	6 37	4 29	6 11	5 22	6 44	4 20	6 18	5 15	6 52	4 9	6 27	5 6	7 0	3 56	6 38	11 23	1	2	3
20 Wed.	3 22	3	5	8	5 30	6 36	5 24	6 39	5 23	6 43	5 18	6 44	5 16	6 50	5 10	6 50	5 7	6 59	5 1	6 57	12 5	1	2	3
21 Thu.	3 7	2	5	7	5 30	6 35	6 18	7 6	5 24	6 42	6 15	7 8	5 17	6 49	6 10	7 11	5 8	6 57	6 5	7 14	12 46	1	2	3
22 Fri.	2 52	3	5	7	5 31	6 34	7 12	7 32	5 25	6 40	7 11	7 32	5 18	6 47	7 9	7 31	5 9	6 56	7 8	7 30	1 26	1	2	3
23 Sat.	2 37	3	5	8	5 32	6 33	8 5	7 59	5 25	6 39	8 8	7 55	5 19	6 46	8 10	7 52	5 10	6 54	8 13	7 47	2 6	1	2	3
24 Sun.	2 22	3	5	8	5 32	6 32	9 1	8 27	5 26	6 38	9 5	8 21	5 19	6 44	9 11	8 14	5 12	6 52	9 18	8 5	2 47	1	2	3
25 Mon.	2 5	3	5	8	5 33	6 31	9 57	8 58	5 27	6 37	10 6	8 50	5 20	6 43	10 15	8 39	5 13	6 50	10 26	8 26	3 31	1	2	4
26 Tue.	1 49	3	6	8	5 33	6 30	10 58	9 35	5 28	6 35	11 9	9 23	5 21	6 41	11 21	9 9	5 14	6 49	11 36	8 53	4 19	1	3	4
27 Wed.	1 32	3	6	9	5 34	6 29	12 0	10 18	5 28	6 34	12 14	10 4	5 22	6 40	12 29	9 47	5 15	6 47	12 49	9 27	5 11	2	4	6
28 Thu.	1 14	3	5	8	5 34	6 28	1 4	11 9	5 29	6 33	1 20	10 53	5 23	6 38	1 38	10 35	5 16	6 45	2 1	10 12	6 8	2	5	7
29 Fri.	0 57	3	5	7	5 35	6 26	2 7	.....	5 30	6 31	2 24	11 53	5 24	6 37	2 43	11 34	5 18	6 43	3 6	11 11	7 8	3	6	8
30 Sat.	0 39	2	4	6	5 36	6 25	3 7	0 10	5 31	6 30	3 23	.....	5 25	6 35	3 41	.....	5 19	6 42	4 3	.....	8 10	3	6	9
31 Sun.	0 20	2	3	5	5 36	6 24	4 1	1 18	5 31	6 29	4 14	1 2	5 26	6 34	4 30	0 45	5 20	6 40	4 49	0 24	9 12	3	6	9

Moon's phases

E.S.T.

	d	h	m
○	5	2	40
☾	12	8	27
●	20	10	20
☽	28	7	3

C.S.T.

	d	h	m
○	5	1	40
☾	12	7	27
●	20	9	20
☽	28	6	3

M.S.T.

	d	h	m
○	5	12	40
☾	12	6	27
●	20	8	20
☽	28	5	3

P.S.T.

	d	h	m
○	5	11	40
☾	12	5	27
●	20	7	20
☽	28	4	3

SEPTEMBER 1952

Sept.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Mon.	−0 1	1	3	4	5 37	6 23	4 47	2 29	5 32	6 27	4 57	2 17	5 27	6 32	5 9	2 2	5 21	6 38	5 23	1 45	10 11	3	7	10
2 Tue.	+0 18	1	2	4	5 37	6 22	5 27	3 42	5 33	6 26	5 34	3 33	5 28	6 31	5 42	3 22	5 22	6 36	5 52	3 10	11 7	3	7	10
3 Wed.	0 37	1	2	3	5 38	6 20	6 4	4 54	5 34	6 24	6 7	4 48	5 29	6 29	6 12	4 42	5 24	6 34	6 16	4 34	.....	3	6	10
4 Thu.	0 57	1	2	3	5 38	6 19	6 38	6 4	5 34	6 23	6 38	6 2	5 30	6 27	6 38	6 0	5 25	6 32	6 38	5 58	0 0	3	6	10
5 Fri.	1 17	1	2	3	5 39	6 18	7 12	7 12	5 35	6 22	7 8	7 14	5 31	6 26	7 5	7 17	5 26	6 30	7 0	7 19	0 51	3	6	9
6 Sat.	1 37	1	2	4	5 39	6 17	7 47	8 19	5 36	6 20	7 40	8 25	5 32	6 24	7 32	8 31	5 27	6 29	7 22	8 38	1 41	3	6	9
7 Sun.	1 57	1	3	4	5 40	6 16	8 24	9 26	5 37	6 19	8 14	9 35	5 33	6 23	8 2	9 45	5 28	6 27	7 48	9 57	2 32	3	6	9
8 Mon.	2 18	2	3	5	5 40	6 14	9 4	10 32	5 37	6 17	8 52	10 44	5 34	6 21	8 36	10 58	5 30	6 25	8 18	11 15	3 24	3	6	9
9 Tue.	2 38	2	4	6	5 41	6 13	9 50	11 36	5 38	6 16	9 35	11 50	5 35	6 19	9 17	12 8	5 31	6 23	8 56	12 28	4 17	3	5	8
10 Wed.	2 59	2	4	7	5 42	6 12	10 40	12 36	5 39	6 15	10 24	12 53	5 36	6 18	10 5	1 11	5 32	6 21	9 42	1 33	5 11	2	5	7
11 Thu.	3 20	2	5	7	5 42	6 11	11 34	1 32	5 39	6 13	11 18	1 48	5 37	6 16	10 59	2 6	5 33	6 19	10 36	2 29	6 5	2	4	6
12 Fri.	3 41	3	5	8	5 43	6 9	.....	2 20	5 40	6 12	.....	2 36	5 38	6 14	11 58	2 54	5 34	6 17	11 37	3 15	6 58	2	3	5
13 Sat.	4 2	3	5	8	5 43	6 8	0 30	3 3	5 41	6 10	0 15	3 16	5 38	6 13	.....	3 32	5 36	6 15	.....	3 50	7 49	1	3	4
14 Sun.	4 23	3	5	8	5 44	6 7	1 27	3 40	5 42	6 9	1 14	3 51	5 39	6 11	0 59	4 4	5 37	6 14	0 42	4 19	8 36	1	2	3
15 Mon.	4 45	3	5	8	5 44	6 6	2 23	4 12	5 42	6 7	2 13	4 22	5 40	6 9	2 1	4 31	5 38	6 12	1 47	4 43	9 21	1	2	3
16 Tue.	5 6	3	5	8	5 45	6 5	3 18	4 42	5 43	6 6	3 11	4 48	5 41	6 8	3 2	4 55	5 39	6 10	2 52	5 3	10 4	1	2	3
17 Wed.	5 27	3	5	7	5 45	6 3	4 13	5 10	5 44	6 5	4 8	5 13	5 42	6 6	4 2	5 16	5 40	6 8	3 56	5 21	10 45	1	2	3
18 Thu.	5 48	3	5	7	5 46	6 2	5 6	5 36	5 45	6 3	5 5	5 37	5 43	6 4	5 2	5 37	5 42	6 6	5 0	5 38	11 25	1	2	3
19 Fri.	6 10	3	5	8	5 46	6 1	6 0	6 3	5 45	6 2	6 2	6 0	5 44	6 3	6 3	5 58	5 43	6 4	6 5	5 55	12 5	1	2	3
20 Sat.	6 31	3	5	8	5 47	6 0	6 56	6 31	5 46	6 0	6 59	6 26	5 45	6 1	7 4	6 20	5 44	6 2	7 10	6 12	12 47	1	2	3
21 Sun.	6 52	3	5	8	5 47	5 58	7 52	7 2	5 47	5 59	8 0	6 53	5 46	6 0	8 8	6 44	5 45	6 0	8 17	6 33	1 39	1	2	3
22 Mon.	7 13	3	6	8	5 48	5 57	8 52	7 36	5 48	5 57	9 1	7 25	5 47	5 58	9 13	7 12	5 46	5 58	9 27	6 57	2 17	1	3	4
23 Tue.	7 34	3	6	8	5 49	5 56	9 53	8 17	5 48	5 56	10 6	8 3	5 48	5 56	10 21	7 48	5 48	5 56	10 39	7 29	3 8	2	3	5
24 Wed.	7 55	3	5	8	5 49	5 55	10 56	9 4	5 49	5 55	11 11	8 49	5 49	5 55	11 29	8 32	5 49	5 55	11 50	8 10	4 2	2	4	6
25 Thu.	8 15	3	5	7	5 50	5 53	11 58	10 1	5 50	5 53	12 14	9 45	5 50	5 53	12 34	9 25	5 50	5 53	12 57	9 3	5 0	3	5	8
26 Fri.	8 36	2	4	7	5 50	5 52	12 57	11 4	5 50	5 52	1 14	10 49	5 51	5 51	1 33	10 31	5 51	5 51	1 55	10 8	6 0	3	6	9
27 Sat.	8 56	2	4	5	5 51	5 51	1 51	.....	5 51	5 50	2 6	11 58	5 52	5 50	2 24	11 43	5 52	5 49	2 43	11 24	7 0	3	6	9
28 Sun.	9 17	2	3	4	5 51	5 50	2 39	0 13	5 52	5 49	2 50	.....	5 53	5 48	3 4	.....	5 54	5 47	3 23	.....	7 58	3	6	9
29 Mon.	9 37	1	3	4	5 52	5 48	3 21	1 23	5 53	5 47	3 29	1 11	5 54	5 46	3 39	0 59	5 55	5 45	3 50	0 44	8 53	3	6	10
30 Tue.	9 56	1	2	3	5 53	5 47	3 58	2 32	5 54	5 46	4 3	2 25	5 55	5 45	4 10	2 16	5 56	5 43	4 16	2 7	9 46	3	6	10

Moon's phases

E.S.T.

	d	h	m
○	3	10	19
☾	10	9	36
●	19	2	22
☽	26	3	31

C.S.T.

	d	h	m
○	3	9	19
☾	10	8	36
●	19	1	22
☽	26	2	31

M.S.T.

	d	h	m
○	3	8	19
☾	10	7	36
●	19	0	22
☽	26	1	31

P.S.T.

	d	h	m
○	3	7	19
☾	10	6	36
●	18	11	22
☽	26	12	31

OCTOBER 1952

Oct.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Wed.	10 16	1	2	3	5 53	5 46	4 33	3 41	5 54	5 44	4 34	3 38	5 56	5 43	4 36	3 34	5 57	5 41	4 39	3 29	10 37	3	6	9
2 Thu.	10 35	1	2	3	5 54	5 45	5 6	4 49	5 55	5 43	5 4	4 49	5 57	5 41	5 2	4 49	5 59	5 39	5 1	4 49	11 27	3	6	9
3 Fri.	10 54	1	2	4	5 54	5 44	5 40	5 56	5 56	5 42	5 36	6 0	5 58	5 40	5 29	6 5	6 0	5 38	5 23	6 10	.....	3	6	9
4 Sat.	11 13	1	3	4	5 55	5 42	6 17	7 4	5 57	5 40	6 8	7 11	5 59	5 38	5 59	7 20	6 1	5 36	5 47	7 29	0 18	3	6	9
5 Sun.	11 31	2	3	5	5 55	5 41	6 57	8 11	5 57	5 39	6 46	8 22	6 0	5 37	6 32	8 34	6 2	5 34	6 15	8 48	1 10	3	6	9
6 Mon.	11 49	2	4	5	5 56	5 40	7 41	9 18	5 58	5 38	7 28	9 31	6 1	5 35	7 10	9 46	6 4	5 32	6 51	10 6	2 4	3	6	9
7 Tue.	12 6	2	4	6	5 57	5 39	8 31	10 21	5 59	5 36	8 15	10 38	6 2	5 33	7 57	10 55	6 5	5 30	7 34	11 16	2 59	3	5	8
8 Wed.	12 23	2	5	7	5 57	5 38	9 25	11 21	6 0	5 35	9 8	11 37	6 3	5 32	8 50	11 56	6 6	5 28	8 27	12 18	3 55	2	4	7
9 Thu.	12 40	3	5	8	5 58	5 37	10 21	12 13	6 1	5 34	10 5	12 30	6 4	5 30	9 48	12 47	6 7	5 27	9 26	1 9	4 49	2	4	6
10 Fri.	12 56	3	5	8	5 58	5 35	11 18	12 59	6 1	5 32	11 4	1 14	6 5	5 29	10 49	1 29	6 9	5 25	10 30	1 49	5 41	2	3	4
11 Sat.	13 12	3	5	8	5 59	5 34	.....	1 38	6 2	5 31	.....	1 51	6 6	5 27	11 51	2 4	6 10	5 23	11 35	2 21	6 31	1	2	4
12 Sun.	13 27	3	5	8	6 0	5 33	0 15	2 12	6 3	5 30	0 3	2 22	6 7	5 26	.....	2 33	6 11	5 21	.....	2 46	7 17	1	2	3
13 Mon.	13 42	3	5	8	6 0	5 32	1 10	2 43	6 4	5 28	1 2	2 50	6 8	5 24	0 52	2 59	6 13	5 19	0 41	3 7	8 0	1	2	3
14 Tue.	13 56	3	5	7	6 1	5 31	2 5	3 12	6 5	5 27	1 59	3 16	6 9	5 23	1 52	3 20	6 14	5 18	1 45	3 26	8 42	1	2	3
15 Wed.	14 9	3	5	7	6 2	5 30	2 59	3 39	6 6	5 26	2 56	3 40	6 10	5 21	2 52	3 41	6 15	5 16	2 48	3 44	9 22	1	2	3
16 Thu.	14 22	3	5	8	6 2	5 29	3 52	4 6	6 6	5 24	3 53	4 4	6 11	5 20	3 53	4 2	6 16	5 14	3 53	4 1	10 2	1	2	3
17 Fri.	14 35	3	5	8	6 3	5 27	4 48	4 33	6 7	5 23	4 50	4 29	6 12	5 18	4 54	4 24	6 18	5 12	4 58	4 18	10 44	1	2	3
18 Sat.	14 47	3	5	8	6 4	5 26	5 44	5 4	6 8	5 22	5 51	4 56	6 13	5 17	5 58	4 47	6 19	5 11	6 5	4 39	11 27	1	2	3
19 Sun.	14 58	3	6	8	6 4	5 25	6 44	5 37	6 9	5 21	6 53	5 27	6 14	5 15	7 3	5 15	6 20	5 9	7 15	5 2	12 13	1	3	4
20 Mon.	15 8	3	6	9	6 5	5 24	7 45	6 16	6 10	5 19	7 58	6 4	6 15	5 14	8 11	5 49	6 22	5 7	8 27	5 31	1 4	2	3	5
21 Tue.	15 18	3	6	8	6 6	5 23	8 49	7 3	6 11	5 18	9 4	6 48	6 16	5 12	9 20	6 30	6 23	5 6	9 40	6 10	1 58	2	4	6
22 Wed.	15 28	3	5	8	6 6	5 22	9 52	7 57	6 12	5 17	10 9	7 41	6 18	5 11	10 27	7 22	6 24	5 4	10 49	6 59	2 55	2	5	7
23 Thu.	15 36	2	4	7	6 7	5 21	10 53	8 59	6 12	5 16	11 9	8 43	6 19	5 10	11 28	8 24	6 26	5 2	11 51	8 1	3 55	3	6	8
24 Fri.	15 44	2	4	6	6 8	5 20	11 48	10 4	6 13	5 15	12 3	9 50	6 20	5 8	12 20	9 33	6 27	5 1	12 41	9 13	4 54	3	6	9
25 Sat.	15 52	2	3	5	6 8	5 19	12 36	11 12	6 14	5 14	12 49	11 0	6 21	5 7	1 4	10 47	6 28	4 59	1 20	10 31	5 51	3	6	9
26 Sun.	15 58	1	3	4	6 9	5 18	1 18	.....	6 15	5 12	1 28	.....	6 22	5 6	1 39	.....	6 30	4 58	1 52	11 50	6 46	3	6	9
27 Mon.	16 4	1	2	3	6 10	5 18	1 56	0 20	6 16	5 11	2 2	0 12	6 23	5 4	2 10	0 2	6 31	4 56	2 18	.....	7 38	3	6	9
28 Tue.	16 9	1	2	3	6 11	5 17	2 30	1 27	6 17	5 10	2 33	1 22	6 24	5 3	2 36	1 16	6 32	4 55	2 41	1 9	8 28	3	6	9
29 Wed.	16 13	1	2	3	6 11	5 16	3 3	2 33	6 18	5 9	3 3	2 31	6 25	5 2	3 2	2 29	6 34	4 53	3 2	2 27	9 16	3	6	9
30 Thu.	16 17	1	2	3	6 12	5 15	3 36	3 38	6 19	5 8	3 32	3 40	6 26	5 1	3 29	3 42	6 35	4 52	3 24	3 45	10 6	3	6	9
31 Fri.	16 20	1	2	4	6 13	5 14	4 11	4 44	6 20	5 7	4 4	4 50	6 27	4 59	3 56	4 55	6 37	4 50	3 47	5 3	10 57	3	6	9

Moon's phases

E.S.T.

	d	h	m
○	3	7	15
☾	10	2	33
●	18	5	42
☽	25	11	4

C.S.T.

	d	h	m
○	3	6	15
☾	10	1	33
●	18	4	42
☽	25	10	4

M.S.T.

	d	h	m
○	3	5	15
☾	10	12	33
●	18	3	42
☽	25	9	4

P.S.T.

	d	h	m
○	3	4	15
☾	10	11	33
●	18	2	42
☽	25	8	4

NOVEMBER 1952

Nov.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upoer transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Sat.	16 22	1	3	4	6 14	5 13	4 49	5 50	6 21	5 6	4 39	6 0	6 29	4 58	4 26	6 9	6 38	4 49	4 12	6 21	11 49	3	6	9
2 Sun.	16 23	2	3	5	6 14	5 13	5 32	6 57	6 22	5 5	5 19	7 9	6 30	4 57	5 3	7 23	6 39	4 47	4 45	7 40	.....	3	6	9
3 Mon.	16 24	2	4	6	6 15	5 12	6 19	8 2	6 23	5 4	6 4	8 17	6 31	4 56	5 46	8 35	6 41	4 46	5 26	8 54	0 44	3	5	8
4 Tue.	16 24	2	5	7	6 16	5 11	7 12	9 6	6 23	5 3	6 56	9 21	6 32	4 55	6 38	9 39	6 42	4 45	6 16	10 1	1 41	2	5	7
5 Wed.	16 22	3	5	8	6 17	5 10	8 8	10 3	6 24	5 2	7 52	10 18	6 33	4 54	7 35	10 36	6 43	4 43	7 13	10 58	2 37	2	4	6
6 Thu.	16 20	3	5	8	6 18	5 10	9 6	10 51	6 25	5 2	8 52	11 6	6 34	4 53	8 36	11 23	6 45	4 42	8 16	11 44	3 31	2	3	5
7 Fri.	16 18	3	5	8	6 18	5 9	10 4	11 34	6 26	5 1	9 52	11 46	6 36	4 52	9 38	12 1	6 46	4 41	9 21	12 19	4 22	1	3	4
8 Sat.	16 14	3	5	8	6 19	5 8	11 0	12 11	6 27	5 0	10 51	12 21	6 37	4 51	10 40	12 33	6 48	4 39	10 28	12 47	5 10	1	2	3
9 Sun.	16 9	3	5	7	6 20	5 8	11 55	12 42	6 28	4 59	11 49	12 51	6 38	4 50	11 40	1 0	6 49	4 38	11 32	1 10	5 55	1	2	3
10 Mon.	16 4	3	5	7	6 21	5 7	.....	1 12	6 29	4 58	.....	1 17	6 39	4 49	.....	1 23	6 50	4 37	.....	1 30	6 37	1	2	3
11 Tue.	15 58	3	5	7	6 22	5 6	0 49	1 39	6 30	4 58	0 46	1 42	6 40	4 48	0 40	1 44	6 52	4 36	0 35	1 48	7 18	1	2	3
12 Wed.	15 51	3	5	7	6 22	5 6	1 43	2 6	6 31	4 57	1 42	2 5	6 41	4 47	1 40	2 5	6 53	4 35	1 39	2 5	7 58	1	2	3
13 Thu.	15 43	3	5	8	6 23	5 5	2 37	2 33	6 32	4 56	2 39	2 29	6 42	4 46	2 41	2 27	6 54	4 34	2 44	2 22	8 38	1	2	3
14 Fri.	15 34	3	5	8	6 24	5 5	3 33	3 3	6 33	4 55	3 38	2 56	6 44	4 45	3 43	2 49	6 56	4 33	3 49	2 41	9 21	1	2	3
15 Sat.	15 24	3	6	8	6 25	5 4	4 31	3 34	6 34	4 55	4 39	3 26	6 45	4 44	4 48	3 15	6 57	4 32	4 59	3 3	10 6	1	2	4
16 Sun.	15 13	3	6	9	6 26	5 4	5 32	4 12	6 35	4 54	5 43	4 0	6 46	4 43	5 56	3 47	6 59	4 31	6 10	3 31	10 55	2	3	5
17 Mon.	15 2	3	6	9	6 27	5 3	6 37	4 57	6 36	4 54	6 50	4 42	6 47	4 43	7 6	4 27	7 0	4 30	7 24	4 7	11 49	2	4	6
18 Tue.	14 50	3	5	8	6 27	5 3	7 41	5 50	6 37	4 53	7 57	5 33	6 48	4 42	8 16	5 15	7 1	4 29	8 37	4 54	12 47	2	5	7
19 Wed.	14 36	2	5	7	6 28	5 2	8 44	6 51	6 38	4 53	9 1	6 35	6 49	4 41	9 20	6 16	7 3	4 28	9 42	5 52	1 47	3	6	8
20 Thu.	14 22	2	4	6	6 29	5 2	9 43	7 56	6 39	4 52	9 59	7 42	6 51	4 41	10 16	7 24	7 4	4 27	10 38	7 4	2 48	3	6	9
21 Fri.	14 8	2	3	5	6 30	5 2	10 35	9 4	6 40	4 52	10 48	8 52	6 52	4 40	11 3	8 38	7 5	4 26	11 20	8 21	3 47	3	6	9
22 Sat.	13 52	1	3	4	6 31	5 1	11 18	10 13	6 41	4 51	11 28	10 4	6 53	4 39	11 41	9 53	7 7	4 25	11 54	9 40	4 43	3	6	9
23 Sun.	13 36	1	2	3	6 32	5 1	11 56	11 20	6 42	4 51	12 4	11 13	6 54	4 39	12 13	11 7	7 8	4 25	12 22	10 59	5 35	3	6	9
24 Mon.	13 19	1	2	3	6 32	5 1	12 32	.....	6 43	4 50	12 35	.....	6 55	4 38	12 40	.....	7 9	4 24	12 45	.....	6 24	3	6	9
25 Tue.	13 1	1	2	3	6 33	5 0	1 4	0 24	6 44	4 50	1 5	0 22	6 56	4 38	1 5	0 19	7 10	4 23	1 6	0 16	7 12	3	6	9
26 Wed.	12 43	1	2	3	6 34	5 0	1 36	1 28	6 45	4 50	1 33	1 29	6 57	4 37	1 30	1 30	7 12	4 23	1 27	1 32	8 0	3	6	9
27 Thu.	12 23	1	2	3	6 35	5 0	2 9	2 31	6 46	4 49	2 3	2 36	6 58	4 37	1 57	2 41	7 13	4 22	1 49	2 47	8 49	3	6	9
28 Fri.	12 3	1	3	4	6 36	5 0	2 45	3 36	6 47	4 49	2 35	3 44	6 59	4 37	2 25	3 53	7 14	4 22	2 13	4 3	9 39	3	6	9
29 Sat.	11 43	2	3	5	6 36	5 0	3 24	4 41	6 48	4 49	3 13	4 52	7 0	4 36	2 58	5 5	7 15	4 21	2 42	5 19	10 32	3	6	9
30 Sun.	11 21	2	4	6	6 37	5 0	4 9	5 46	6 48	4 49	3 55	6 0	7 1	4 36	3 38	6 15	7 17	4 21	3 19	6 35	11 27	3	6	8

Moon's phases

E.S.T.

	d	h	m
○	1	6	10
☌	9	10	43
●	17	7	56
☽	24	6	34

C.S.T.

	d	h	m
○	1	5	10
☌	9	9	43
●	17	6	56
☽	24	5	34

M.S.T.

	d	h	m
○	1	4	10
☌	9	8	43
●	17	5	56
☽	24	4	34

P.S.T.

	d	h	m
○	1	3	10
☌	9	7	43
●	17	4	56
☽	24	3	34

DECEMBER 1952

Dec.	Sun fast	a-factor, moonrise			LOCAL CIVIL TIME Latitude 30° n.				LOCAL CIVIL TIME Latitude 35° n.				LOCAL CIVIL TIME Latitude 40° n.				LOCAL CIVIL TIME Latitude 45° n.				Moon's upper transit	a-factor, moonset		
		90°	105°	120°	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set	Sun-rise	Sun-set	Moon-rise	Moon-set		90°	105°	120°
	m s	m	m	m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	h m	m	m	m
1 Mon.	10 59	2	4	7	6 38	5 0	5 0	6 49	6 49	4 48	4 44	7 6	7 2	4 36	4 26	7 23	7 18	4 20	4 4	7 44	.....	3	5	8
2 Tue.	10 37	2	5	7	6 39	5 0	5 55	7 48	6 50	4 48	5 39	8 5	7 3	4 35	5 21	8 23	7 19	4 20	4 59	8 46	0 24	2	4	7
3 Wed.	10 14	3	5	8	6 40	5 0	6 53	8 42	6 51	4 48	6 38	8 58	7 4	4 35	6 21	9 15	7 20	4 20	6 1	9 36	1 19	2	4	5
4 Thu.	9 50	3	5	8	6 41	5 0	7 52	9 27	6 52	4 48	7 39	9 41	7 5	4 35	7 24	9 56	7 21	4 19	7 6	10 16	2 12	2	3	4
5 Fri.	9 25	3	5	8	6 41	5 0	8 50	10 6	6 53	4 48	8 39	10 18	7 6	4 35	8 27	10 31	7 22	4 19	8 13	10 46	3 2	1	2	4
6 Sat.	9 0	3	5	7	6 42	5 0	9 45	10 40	6 54	4 48	9 38	10 50	7 7	4 35	9 28	11 0	7 23	4 19	9 18	11 12	3 49	1	2	3
7 Sun.	8 35	3	5	7	6 43	5 0	10 40	11 11	6 55	4 48	10 35	11 17	7 8	4 35	10 28	11 25	7 24	4 19	10 22	11 33	4 32	1	2	3
8 Mon.	8 9	2	5	7	6 44	5 0	11 33	11 39	6 55	4 48	11 31	11 42	7 9	4 35	11 28	11 46	7 25	4 18	11 25	11 51	5 13	1	2	3
9 Tue.	7 42	2	5	7	6 44	5 0	.....	12 5	6 56	4 48	.....	12 6	7 10	4 35	.....	12 7	7 26	4 18	.....	12 8	5 52	1	2	3
10 Wed.	7 15	3	5	7	6 45	5 1	0 26	12 32	6 57	4 49	0 27	12 30	7 11	4 35	0 27	12 28	7 27	4 18	0 28	12 25	6 32	1	2	3
11 Thu.	6 48	3	5	8	6 46	5 1	1 20	1 0	6 58	4 49	1 23	12 56	7 12	4 35	1 28	12 50	7 28	4 18	1 33	12 43	7 13	1	2	3
12 Fri.	6 20	3	5	8	6 46	5 1	2 16	1 31	6 58	4 49	2 23	1 23	7 12	4 35	2 31	1 14	7 29	4 19	2 39	1 4	7 56	1	2	3
13 Sat.	5 52	3	6	8	6 47	5 1	3 16	2 5	6 59	4 49	3 25	1 55	7 13	4 35	3 36	1 42	7 30	4 19	3 49	1 28	8 43	1	3	4
14 Sun.	5 23	3	6	9	6 48	5 2	4 18	2 47	7 0	4 50	4 30	2 33	7 14	4 35	4 45	2 18	7 31	4 19	5 1	2 0	9 35	2	4	5
15 Mon.	4 54	3	6	9	6 48	5 2	5 23	3 36	7 1	4 50	5 38	3 21	7 15	4 36	5 54	3 3	7 31	4 19	6 16	2 43	10 31	2	4	7
16 Tue.	4 25	3	5	8	6 49	5 2	6 28	4 35	7 1	4 50	6 45	4 18	7 15	4 36	7 3	4 0	7 32	4 19	7 26	3 37	11 32	3	5	8
17 Wed.	3 56	2	4	7	6 50	5 3	7 31	5 41	7 2	4 50	7 47	5 25	7 16	4 36	8 5	5 7	7 33	4 20	8 27	4 46	12 34	3	6	9
18 Thu.	3 26	2	4	5	6 50	5 3	8 26	6 51	7 2	4 51	8 41	6 37	7 17	4 37	8 57	6 22	7 33	4 20	9 16	6 3	1 36	3	6	10
19 Fri.	2 56	2	3	4	6 51	5 4	9 14	8 1	7 3	4 51	9 25	7 51	7 17	4 37	9 38	7 33	7 34	4 20	9 54	7 25	2 35	3	6	10
20 Sat.	2 26	1	3	4	6 51	5 4	9 56	9 10	7 4	4 52	10 4	9 4	7 18	4 38	10 13	8 56	7 35	4 21	10 24	8 46	3 30	3	6	9
21 Sun.	1 57	1	2	3	6 52	5 5	10 33	10 18	7 4	4 52	10 37	10 13	7 18	4 38	10 43	10 10	7 35	4 21	10 50	10 5	4 21	3	6	9
22 Mon.	1 27	1	2	3	6 52	5 5	11 6	11 22	7 5	4 53	11 8	11 22	7 19	4 39	11 9	11 22	7 36	4 22	11 11	11 22	5 10	3	6	9
23 Tue.	0 57	1	2	3	6 53	5 6	11 39	.....	7 5	4 53	11 37	.....	7 19	4 39	11 34	.....	7 36	4 22	11 32	.....	5 58	3	6	9
24 Wed.	0 27	1	2	3	6 53	5 6	12 11	0 25	7 6	4 54	12 5	0 29	7 20	4 40	12 0	0 33	7 37	4 23	11 54	0 38	6 46	3	6	9
25 Thu.	SLOW	1	3	4	6 54	5 7	12 45	1 28	7 6	4 54	12 37	1 36	7 20	4 40	12 27	1 44	7 37	4 23	12 17	1 53	7 35	3	6	9
26 Fri.	0 33	1	3	4	6 54	5 7	1 23	2 32	7 6	4 55	1 11	2 43	7 21	4 41	12 58	2 54	7 37	4 24	12 44	3 7	8 26	3	6	9
27 Sat.	1 3	2	4	5	6 54	5 8	2 5	3 36	7 7	4 56	1 51	3 49	7 21	4 41	1 35	4 3	7 38	4 25	1 17	4 22	9 20	3	6	9
28 Sun.	1 32	2	4	6	6 55	5 8	2 53	4 39	7 7	4 56	2 38	4 54	7 21	4 42	2 20	5 12	7 38	4 25	1 58	5 33	10 15	3	5	8
29 Mon.	2 1	2	5	7	6 55	5 9	3 46	5 39	7 7	4 57	3 30	5 56	7 21	4 43	3 12	6 14	7 38	4 26	2 48	6 36	11 10	2	5	7
30 Tue.	2 30	3	5	8	6 56	5 10	4 42	6 34	7 8	4 58	4 26	6 50	7 22	4 44	4 9	7 8	7 38	4 27	3 47	7 30	.....	2	4	6
31 Wed.	2 59	3	5	8	6 56	5 10	5 40	7 22	7 8	4 58	5 27	7 36	7 22	4 44	5 11	7 52	7 38	4 28	4 52	8 12	0 4	2	3	5

Moon's phases

E.S.T.

	d	h	m
○	1	7	41
☾	9	8	22
●	16	9	2
☽	23	2	51
○	31	0	5

C.S.T.

	d	h	m
○	1	6	41
☾	9	7	22
●	16	8	2
☽	23	1	51
○	30	11	5

M.S.T.

	d	h	m
○	1	5	41
☾	9	6	22
●	16	7	2
☽	23	12	51
○	30	10	5

P.S.T.

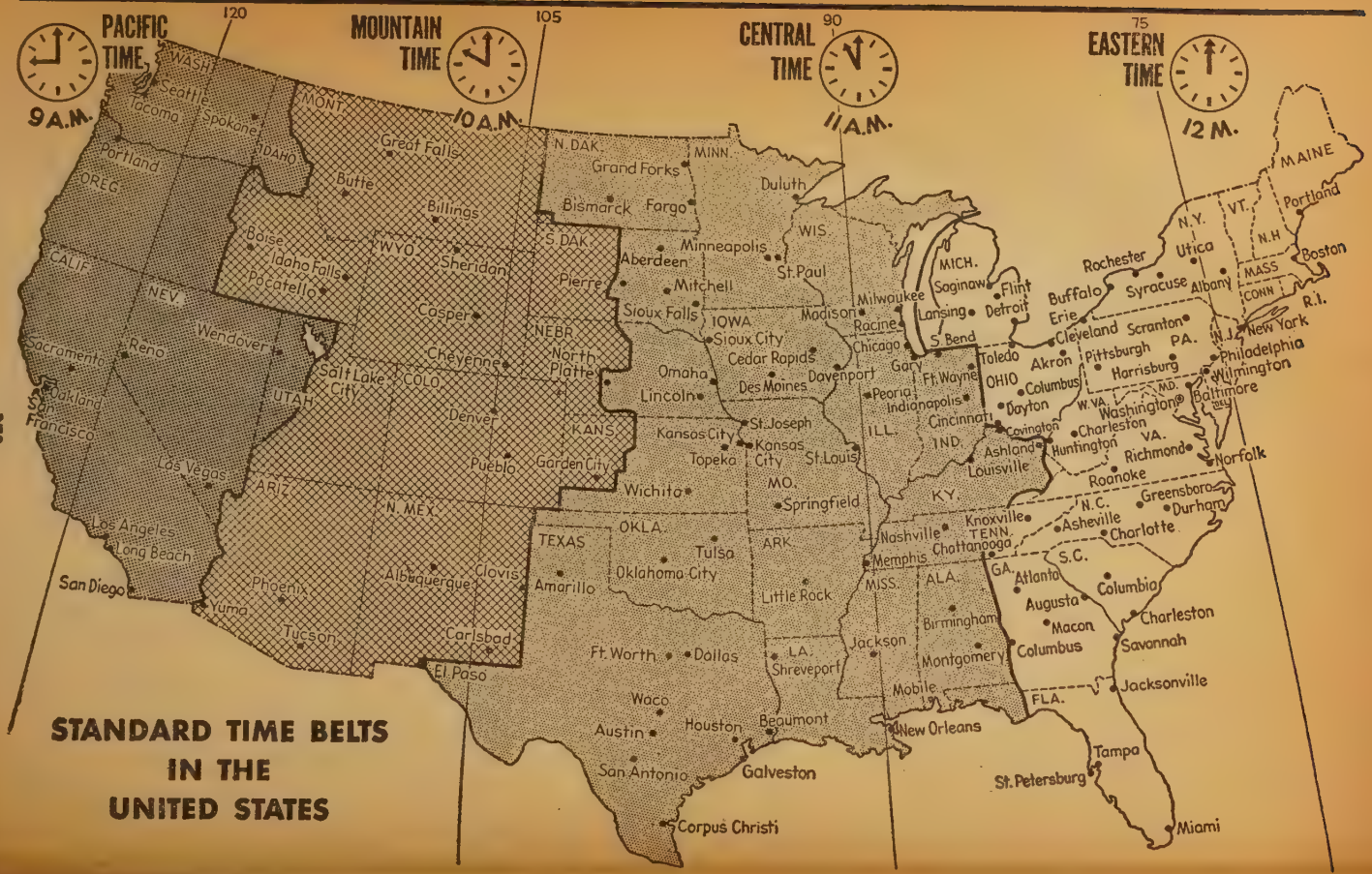
	d	h	m
○	1	4	41
☾	9	5	22
●	16	6	2
☽	23	11	51
○	30	9	5

Longitude, Latitude and Magnetic Declination of U. S. and Canadian Cities

The last column shows, in degrees, the magnetic declination, which is the angle that the magnetic meridian makes with the true, or geographic, meridian. When the value in degrees is marked w, the north end of the compass needle points west of true north by that number of degrees; when the value is e, the north end of the needle points east of true north by that many degrees.

City	Long.	Lat.	Dec.
	° ′	° ′	°
Eastport, Maine	67 0	44 54	21 w
Bangor, Maine	68 47	44 48	19 w
Portland, Maine	70 15	43 40	17 w
Manchester, N. H.	71 30	43 0	16 w
Montpelier, Vt.	72 32	44 15	16 w
Boston, Mass.	71 5	42 21	15 w
Springfield, Mass.	72 34	42 6	14 w
Providence, R. I.	71 24	41 50	15 w
New Haven, Conn.	72 55	41 19	12 w
New York, N. Y.	73 57½	40 48½	12 w
Albany, N. Y.	73 45	42 40	13 w
Watertown, N. Y.	75 55	43 58	13 w
Syracuse, N. Y.	76 8	43 2	11 w
Buffalo, N. Y.	78 50	42 55	7 w
Scranton, Pa.	75 39	41 24	10 w
Philadelphia, Pa.	75 10	39 57	10 w
Pittsburgh, Pa.	79 57	40 27	5 w
Atlantic City, N. J.	74 25	39 22	10 w
Baltimore, Md.	76 38	39 18	8 w
Richmond, Va.	77 29	37 33	6 w
Roanoke, Va.	79 57	37 17	3 w
Charleston, W. Va.	81 38	38 21	2 w
Raleigh, N. C.	78 39	35 46	4 w
Charlotte, N. C.	80 50	35 14	2 w
Wilmington, N. C.	77 57	34 14	3 w
Columbia, S. C.	81 2	34 0	1 w
Charleston, S. C.	79 56	32 47	2 w
Atlanta, Ga.	84 23	33 45	2 e
Savannah, Ga.	81 5	32 5	0
Jacksonville, Fla.	81 40	30 22	1 e
Tampa, Fla.	82 27	27 57	2 e
Miami, Fla.	80 12	25 46	1 e
Key West, Fla.	81 48	24 33	3 e
Sault Ste. Marie, Mich.	84 21	46 30	4 w
Detroit, Mich.	83 3	42 20	3 w
Grand Rapids, Mich.	85 40	42 58	1 e
Cleveland, Ohio	81 37	41 28	5 w
Columbus, Ohio	83 1	40 0	2 w
Cincinnati, Ohio	84 30	39 8	1 e
Louisville, Ky.	85 46	38 15	1 e
Knoxville, Tenn.	83 56	35 57	0
Nashville, Tenn.	86 47	36 10	3 e
Memphis, Tenn.	90 3	35 9	6 e
Birmingham, Ala.	86 50	33 30	3 e
Montgomery, Ala.	86 18	32 21	3 e
Mobile, Ala.	88 3	30 42	5 e
Jackson, Miss.	90 12	32 20	7 e
Indianapolis, Ind.	86 10	39 46	1 e
Milwaukee, Wis.	87 55	43 2	2 e
Chicago, Ill.	87 37	41 50	2 e
Springfield, Ill.	89 38	39 48	4 e
Duluth, Minn.	92 5	46 49	7 e
Minneapolis, Minn.	93 14	44 59	7 e
Dubuque, Iowa	90 40	42 31	5 e
Des Moines, Iowa	93 37	41 35	7 e
Kansas City, Mo.	94 35	39 6	9 e
St. Louis, Mo.	90 12	38 35	5 e
Springfield, Mo.	93 17	37 13	7 e
Hot Springs, Ark.	93 3	34 31	8 e
Shreveport, La.	93 42	32 28	8 e
New Orleans, La.	90 4	29 57	6 e
Fargo, N. Dak.	96 48	46 52	10 e
Bismarck, N. Dak.	100 47	46 48	14 e

City	Long.	Lat.	Dec.
	° ′	° ′	°
Pierre, S. Dak.	97 33	44 22	12 e
Sioux Falls, S. Dak.	96 44	43 33	11 e
Lincoln, Nebr.	96 40	40 50	10 e
North Platte, Nebr.	100 46	41 8	12 e
Wichita, Kans.	97 17	37 43	10 e
Garden City, Kans.	100 53	37 58	13 e
Oklahoma City, Okla.	97 28	35 26	10 e
Amarillo, Tex.	101 50	35 11	12 e
Dallas, Tex.	96 46	32 46	9 e
Sweetwater, Tex.	100 24	32 28	11 e
San Antonio, Tex.	98 33	29 23	10 e
El Paso, Tex.	106 29	31 46	13 e
Havre, Mont.	109 43	48 33	20 e
Helena, Mont.	112 2	46 35	19 e
Lander, Wyo.	108 40	42 50	17 e
Cheyenne, Wyo.	104 52	41 9	15 e
Denver, Colo.	105 0	39 45	14 e
Grand Junction, Colo.	108 33	39 5	15 e
Trinidad, Colo.	104 30	37 10	14 e
Santa Fe, N. Mex.	105 57	35 41	13 e
Carlsbad, N. Mex.	104 15	32 26	13 e
Silver City, N. Mex.	108 18	32 46	14 e
Idaho Falls, Idaho	112 1	43 30	18 e
Salmon, Idaho	113 54	45 11	20 e
Lewiston, Idaho	117 2	46 24	21 e
Boise, Idaho	116 13	43 36	19 e
Salt Lake City, Utah	111 54	40 46	17 e
Richfield, Utah	112 5	38 46	17 e
Flagstaff, Ariz.	111 41	35 13	15 e
Phoenix, Ariz.	112 4	33 29	15 e
Nogales, Ariz.	110 56	31 21	14 e
Las Vegas, Nev.	115 12	36 10	16 e
Elko, Nev.	115 47	40 49	18 e
Austin, Nev.	117 4	39 29	18 e
Reno, Nev.	119 49	39 30	18 e
Spokane, Wash.	117 26	47 40	23 e
Yakima, Wash.	120 33	46 34	22 e
Seattle, Wash.	122 20	47 37	23 e
Hoquiam, Wash.	123 54	46 59	23 e
Portland, Oreg.	122 41	45 31	23 e
Eugene, Oreg.	123 5	44 3	22 e
Baker, Oreg.	117 50	44 47	21 e
Klamath Falls, Oreg.	121 44	42 10	19 e
Sacramento, Calif.	121 30	38 35	17 e
San Francisco, Calif.	122 26	37 47	18 e
Fresno, Calif.	119 48	36 44	17 e
Los Angeles, Calif.	118 15	34 3	16 e
Needles, Calif.	114 36	34 50	15 e
San Diego, Calif.	117 10	32 42	15 e
El Centro, Calif.	115 33	32 48	15 e
St. John, N. B.	66 10	45 18	22 w
Quebec, Que	71 11	46 49	20 w
Montreal, Que.	73 35	45 30	16 w
Ottawa, Ont.	75 43	45 24	14 w
Kingston, Ont.	76 30	44 15	12 w
Toronto, Ont.	79 24	43 40	8 w
London, Ont.	81 34	43 2	5 w
Port Arthur, Ont.	89 17	48 30	1 e
Winnipeg, Man.	97 7	49 54	11 e
Moose Jaw, Sask.	105 31	50 37	18 e
Calgary, Alta.	114 1	51 1	23 e
Nelson, B. C.	117 17	49 30	23 e
Victoria, B. C.	123 21	48 25	24 e



STANDARD TIME BELTS IN THE UNITED STATES

Longitude and Latitude of Foreign Cities—by Continents—and Time of Day Corresponding to 12:00 Noon, E.S.T.

City	Time	Long.	Lat.
		° ′	° ′
NORTH AMERICA			
Nome, Alaska	6:00 a.m.	165 30 w	64 25 n
Sitka, Alaska	9:00 a.m.	135 15 w	57 10 n
Honolulu, Hawaii	7:00 a.m.	157 50 w	21 18 n
Chihuahua, Mexico	11:00 a.m.	106 5 w	28 37 n
Mexico City, Mexico	11:00 a.m.	99 7 w	19 26 n
Veracruz, Mexico	11:00 a.m.	96 10 w	19 10 n
Panamá City, Panamá	12:00 noon	79 32 w	8 58 n
Havana, Cuba	12:00 noon	82 23 w	23 8 n
Kingston, Jamaica	12:00 noon	76 49 w	17 59 n
San Juan, Puerto Rico	1:00 p.m.	66 10 w	18 30 n
Bogotá, Colombia	12:00 noon	74 15 w	4 32 n
Caracas, Venezuela	12:30 p.m.	67 2 w	10 28 n
Georgetown, British Guiana	1:30 p.m.	58 15 w	6 45 n
Paramaribo, Surinam	1:30 p.m.	55 15 w	5 45 n
Cayenne, French Guiana	1:30 p.m.	52 18 w	4 49 n
Guayaquil, Ecuador	12:00 noon	79 56 w	2 10 s
Lima, Peru	12:00 noon	77 2 w	12 0 s
Belém, Brazil	2:00 p.m.	48 29 w	1 28 s
São Salvador, Brazil	2:00 p.m.	38 27 w	12 56 s
Rio de Janeiro, Brazil	2:00 p.m.	43 12 w	22 57 s
São Paulo, Brazil	2:00 p.m.	46 31 w	23 31 s
La Paz, Bolivia	1:00 p.m.	68 22 w	16 27 s
Asunción, Paraguay	1:00 p.m.	57 40 w	25 15 s
Montevideo, Uruguay	1:30 p.m.	56 10 w	34 53 s
Iquique, Chile	1:00 p.m.	70 7 w	20 10 s
Santiago, Chile	1:00 p.m.	70 45 w	33 28 s
Córdoba, Argentina	1:00 p.m.	64 10 w	31 28 s
Buenos Aires, Argentina	1:00 p.m.	58 22 w	34 35 s
Reykjavik, Iceland	4:00 p.m.	21 58 w	64 4 n
Belfast, Northern Ireland	5:00 p.m.	5 56 w	54 37 n
Dublin, Ireland	5:00 p.m.	6 15 w	53 20 n
Aberdeen, Scotland	5:00 p.m.	2 9 w	57 9 n
Edinburgh, Scotland	5:00 p.m.	3 10 w	55 55 n
Glasgow, Scotland	5:00 p.m.	4 15 w	55 50 n
Newcastle-on-Tyne, Eng.	5:00 p.m.	1 37 w	54 58 n
Leeds, England	5:00 p.m.	1 30 w	53 45 n
Manchester, England	5:00 p.m.	2 15 w	53 30 n
Liverpool, England	5:00 p.m.	3 0 w	53 25 n
Birmingham, England	5:00 p.m.	1 55 w	52 25 n
London, England	5:00 p.m.	0 5 w	51 32 n
Bristol, England	5:00 p.m.	2 35 w	51 28 n
Plymouth, England	5:00 p.m.	4 5 w	50 25 n
Hammerfest, Norway	6:00 p m.	23 38 e	70 38 n
Oslo, Norway	6:00 p.m.	10 42 e	59 57 n
Stockholm, Sweden	6:00 p.m.	18 3 e	59 17 n
Helsinki, Finland	7:00 p.m.	25 0 e	60 10 n
Copenhagen, Denmark	6:00 p.m.	12 34 e	55 40 n
Lisbon, Portugal	5:00 p.m.	9 9 w	38 44 n
Madrid, Spain	5:00 p.m.	3 42 w	40 26 n
Barcelona, Spain	5:00 p.m.	2 9 e	41 23 n
Marseille, France	5:00 p.m.	5 20 e	43 20 n
Bordeaux, France	5:00 p.m.	0 31 w	44 50 n
Lyon, France	5:00 p.m.	4 50 e	45 45 n
Paris, France	5:00 p m.	2 20 e	48 48 n
Brussels, Belgium	5:00 p.m.	4 22 e	50 52 n
Amsterdam, Netherlands	5:00 p.m.	4 53 e	52 22 n
Bremen, Germany	6:00 p.m.	8 49 e	53 5 n
Hamburg, Germany	6:00 p.m.	10 2 e	53 33 n
Berlin, Germany	6:00 p.m.	13 25 e	52 30 n
Frankfurt, Germany	6:00 p.m.	8 41 e	50 7 n
Munich, Germany	6:00 p.m.	11 35 e	48 8 n
Zürich, Switzerland	6:00 p.m.	8 31 e	47 21 n
Milan, Italy	6:00 p.m.	9 10 e	45 27 n
Venice, Italy	6:00 p.m	12 20 e	45 26 n
Rome, Italy	6:00 p.m.	12 27 e	41 54 n
Naples, Italy	6:00 p.m.	14 15 e	40 50 n
Warsaw, Poland	6:00 p.m.	21 0 e	52 14 n
Prague, Czechoslovakia	6:00 p.m	14 26 e	50 5 n
Vienna, Austria	6:00 p.m.	16 20 e	48 14 n
Budapest, Hungary	6:00 p.m.	19 5 e	47 30 n
Belgrade, Yugoslavia	6:00 p.m.	20 32 e	44 52 n
Bucharest, Rumania	7:00 p.m.	26 7 e	44 25 n
Sofia, Bulgaria	7:00 p.m.	23 20 e	42 40 n
Athens, Greece	7:00 p.m	23 43 e	37 58 n
Leningrad, U.S.S.R.	7:00 p.m.	30 18 e	59 56 n
Moscow, U.S.S.R.	7:00 p.m.	37 36 e	55 45 n
Saratov, U.S.S.R.	8:00 p.m.	46 0 e	51 31 n
Odessa, U.S.S.R.	7:00 p.m.	30 48 e	46 27 n
Algiers, Algeria	5:00 p.m.	3 0 e	36 50 n
Tripoli, Libya	6:00 p.m.	13 12 e	32 57 n
Cairo, Egypt	7:00 p.m.	31 21 e	30 2 n
Dakar, French West Africa	4:00 p.m.	17 28 w	14 40 n
Léopoldville, Belgian Congo	6:00 p.m.	15 17 e	4 18 s
Addis Ababa, Ethiopia	8:00 p.m.	38 49 e	9 2 n
Nairobi, Kenya	8:00 p.m.	36 55 e	1 25 n
Johannesburg, U. of S. Af.	7:00 p.m.	28 4 e	26 12 s
Durban, U. of S. Af.	7:00 p.m.	30 53 e	29 53 s
Capetown, U. of S Af.	7:00 p.m.	18 22 e	33 55 s
Tananarive, Madagascar	8:00 p.m.	47 33 e	18 50 s
Irkutsk, U.S.S.R.	0:00 a.m.*	104 20 e	52 30 n
Vladivostok, U.S.S.R.	2:00 a.m.*	132 0 e	43 10 n
Peiping, China	1:00 a.m.*	116 25 e	39 55 n
Nanking, China	1:00 a.m.*	118 53 e	32 3 n
Shanghai, China	1:00 a.m.*	121 28 e	31 10 n
Chungking, China	0:00 a.m.*	106 34 e	29 46 n
Canton, China	1:00 a.m.*	113 15 e	23 7 n
Manila, Philippines	1:00 a.m.*	120 57 e	14 35 n
Bangkok, Thailand	0:00 a.m.*	100 30 e	13 45 n
Singapore, British Malaya	0:30 a.m.*	103 55 e	1 14 n
Rangoon, Burma	11:30 p.m.	96 0 e	16 50 n
Calcutta, India	10:30 p.m.	88 24 e	22 34 n
Bombay, India	10:30 p.m.	72 48 e	19 0 n
Mecca, Saudi Arabia	8:00 p.m.	39 45 e	21 29 n
Ankara, Turkey	7:00 p.m.	32 55 e	39 55 n
Tokyo, Japan	2:00 a.m.*	139 45 e	35 40 n
Nagoya, Japan	2:00 a.m.*	136 56 e	35 7 n
Osaka, Japan	2:00 a.m.*	135 30 e	34 32 n
Nagasaki, Japan	2:00 a.m.*	129 57 e	32 48 n
Darwin, Australia	2:30 a.m.*	130 51 e	12 28 s
Brisbane, Australia	3:00 a.m.*	153 8 e	27 29 s
Sydney, Australia	3:00 a.m.*	151 0 e	34 0 s
Melbourne, Australia	3:00 a.m.*	144 58 e	37 47 s
Adelaide, Australia	2:30 a.m.*	138 36 e	34 55 s
Perth, Australia	1:00 a.m.*	115 52 e	31 57 s
Hobart, Tasmania	3:00 a.m.*	147 19 e	42 52 s
Auckland, New Zealand	5:00 a.m.*	174 45 e	36 52 s
Wellington, New Zealand	5:00 a.m.*	174 47 e	41 17 s
Jakarta, Java	1:00 a.m.*	106 48 e	6 16 s
Makassar, Celebes	1:00 a.m.*	119 30 e	5 9 s
Port Moresby, Papua Ter.	3:00 a.m.*	147 8 e	9 25 s

* On the following day.

The World Calendar

FIRST QUARTER

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SECOND QUARTER

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
						W*

THIRD QUARTER

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

FOURTH QUARTER

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
						W†

* The Leap-Year World Holiday, W or June 31 (an extra day), follows June 30 in leap years only.
† The Year-End World Holiday, W or December 31 (365th day), follows December 30 every year.

Exposition

The perpetual World Calendar divides the year into equal quarters of 91 days, or thirteen weeks, or three months, or approximately one season. The first month in each quarter contains 31 days. The other two months have 30 days each, every month having twenty-six weekdays plus Sundays. Every quarter with its monthly arrangement of 31–30–30 days begins on a Sunday, the first day of the week, and ends on a Saturday, the seventh day of the week, which is easy for business, accountants and educators because the closing day of every quarter does not fall on a Sunday. Every year begins logically on the accepted first day of the week, a Sunday, January 1. This plan retains the customary arrangement of weekdays.

The 364-day year is not complete however. The 365th day of the year, essential in keeping the calendar in step with the seasons, is the logical Year-End World Holiday, dated W or December 31, that follows Saturday, December 30, every year. By giving the 365th day, the Year-End World Holiday, a name and date a blank

date is avoided. This World Holiday is an integral part of the year; it belongs to and completes the calendar.

The extra day in leap years is the Leap-Year World Holiday, dated W or June 31, and follows Saturday, June 30. By placing these two stabilizing days, the Leap-Year World Holiday in leap years at the end of the second quarter and the Year-End World Holiday every year at the end of the fourth quarter, the calendar in leap years becomes balanced, each half-year having 183 days. The calendar is thus a stable, balanced, well-coordinated time system.

Seventeen nations have already approved the World Calendar, including Afghanistan, Brazil, Chile, China, Czechoslovakia, Estonia, Greece, Hungary, Mexico, Norway, Panamá, Peru, Saudi Arabia, Spain, Syria, Turkey and Uruguay.

Perpetual Calendar

1800—2000 A.D.

Day of the month	Jan. Oct.	Apr. Jul. *Jan.*	Sept. Dec.	Jun.	Feb. Mar. Nov.	Aug. *Feb.*	May	
1 8 15 22 29	A	B	C	D	E	F	G	Mon.
2 9 16 23 30	G	A	B	C	D	E	F	Tue.
3 10 17 24 31	F	G	A	B	C	D	E	Wed.
4 11 18 25	E	F	G	A	B	C	D	Thur.
5 12 19 26	D	E	F	G	A	B	C	Fri.
6 13 20 27	C	D	E	F	G	A	B	Sat.
7 14 21 28	B	C	D	E	F	G	A	Sun.

....	....	*1800*	1801	1802	1803	....
1804	1805	1806	1807	....	*1808*	1809
1810	1811	....	*1812*	1813	1814	1815
....	*1816*	1817	1818	1819	....	*1820*
1821	1822	1823	....	*1824*	1825	1826
1827	....	*1828*	1829	1830	1831	....
1832	1833	1834	1835	....	*1836*	1837
1838	1839	....	*1840*	1841	1842	1843
....	*1844*	1845	1846	1847	....	*1848*
1849	1850	1851	....	*1852*	1853	1854
1855	....	*1856*	1857	1858	1859	....
1860	1861	1862	1863	....	*1864*	1865
1866	1867	....	*1868*	1869	1870	1871
....	*1872*	1873	1874	1875	....	*1876*
1877	1878	1879	....	*1880*	1881	1882
1883	....	*1884*	1885	1886	1887	....
1888	1889	1890	1891	....	*1892*	1893
1894	1895	....	*1896*	1897	1898	1899
1900	1901	1902	1903	....	*1904*	1905
1906	1907	....	*1908*	1909	1910	1911
....	*1912*	1913	1914	1915	....	*1916*
1917	1918	1919	....	*1920*	1921	1922
1923	....	*1924*	1925	1926	1927	....
1928	1929	1930	1931	....	*1932*	1933
1934	1935	....	*1936*	1937	1938	1939
....	*1940*	1941	1942	1943	....	*1944*
1945	1946	1947	....	*1948*	1949	1950
1951	....	*1952*	1953	1954	1955	....
1956	1957	1958	1959	....	*1960*	1961
1962	1963	....	*1964*	1965	1966	1967
....	*1968*	1969	1970	1971	....	*1972*
1973	1974	1975	....	*1976*	1977	1978
1979	....	*1980*	1981	1982	1983	....
1984	1985	1986	1987	....	*1988*	1989
1990	1991	....	*1992*	1993	1994	1995
....	*1996*	1997	1998	1999	....	*2000*

EXAMPLES

(1) Given Nov. 20, 1891, to find the day of the week. Under Nov., opposite 20, is G. In the 1891 column, opposite G is Fri., ***ans.***

(2) Given Fri., Oct. —, 1868, to find the possible days of the month. In the 1868 column, opposite Fri. is G. Under Oct., G gives 2, 9, 16, 23, 30, ***ans.***, the Fridays of Oct., 1868.

(3) Given Mon., — 5, 1811, to find the possible months. In the 1811 column, opposite Mon. is B. Opposite 5, B gives Aug., the only common-year month available, ***ans.***

(4) Given Sat., Feb. 29, —, to find the possible years. Under Feb., leap-year, opposite 29, is F. Opposite Sat. F gives leap-years 1812, 1840 1868, 1896, etc., ***ans.***

NOTE: In leap-years, use the Jan. and Feb. in italics, but do not use these for common years.

1951

JANUARY

S	M	T	W	T	F	S
—	[1]	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	—	—	—

FEBRUARY

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	[5]	6	7	8	9	10
11	[12]	13	14	[15]	16	17
18	19	20	21	[22]	23	24
25	26	27	28	—	—	—

MARCH

S	M	T	W	T	F	S
—	—	—	—	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	[16]	17
[18]	19	20	21	22	[23]	24
[25]	26	27	28	29	30	31

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	—	—	—	—	—

MAY

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	[30]	31	—	—

JUNE

S	M	T	W	T	F	S
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24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	—	—	—	—

AUGUST

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SEPTEMBER

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OCTOBER

S	M	T	W	T	F	S
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7	8	9	10	11	[12]	13
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21	22	23	24	25	26	27
28	29	30	31	—	—	—

NOVEMBER

S	M	T	W	T	F	S
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[11]	[12]	13	14	[15]	16	17
18	19	20	21	[22]	23	24
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DECEMBER

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1952

JANUARY

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FEBRUARY

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10	11	[12]	13	14	[15]	16
17	18	19	20	21	[22]	23
24	25	26	27	28	29	—

MARCH

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23/30	24/31	25	26	27	28	29

APRIL

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[13]	14	15	16	17	18	19
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MAY

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25	26	27	28	29	[30]	31

JUNE

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JULY

S	M	T	W	T	F	S
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27	28	29	30	—	—	—

AUGUST

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SEPTEMBER

S	M	T	W	T	F	S
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28	29	30	—	—	—	—

OCTOBER

S	M	T	W	T	F	S
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[12]	[13]	14	15	16	17	18
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NOVEMBER

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23/30	24	25	26	[27]	28	29

DECEMBER

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1953

JANUARY

S	M	T	W	T	F	S
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FEBRUARY

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[15]	[16]	17	18	19	20	21
[22]	[23]	24	25	26	27	28
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MARCH

S	M	T	W	T	F	S
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APRIL

S	M	T	W	T	F	S
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MAY

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JUNE

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JULY

S	M	T	W	T	F	S
—	—	—	1	2	3	[4]
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AUGUST

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23/30	24/31	25	26	27	28	29

SEPTEMBER

S	M	T	W	T	F	S
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27	28	29	30	—	—	—

OCTOBER

S	M	T	W	T	F	S
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18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

S	M	T	W	T	F	S
1	2	[3]	4	5	6	7
8	9	10	[11]	12	13	14
15	16	17	18	[19]	20	21
22	23	24	25	[26]	27	28
29	30	—	—	—	—	—

DECEMBER

S	M	T	W	T	F	S
—	—	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	[18]	19
20	21	22	23	24	[25]	26
27	28	29	30	31	—	—

Morning and Evening Stars and Planets in 1952

MERCURY

Morning star, Jan. 1 to Feb. 21
Evening star, Feb. 21 to Apr. 5
Morning star, Apr. 5 to June 8
Evening star, June 8 to Aug. 12
Morning star, Aug. 12 to Sept. 24
Evening star, Sept. 24 to Nov. 30
Morning star, Nov. 30 to Dec. 31

VENUS

Morning star, Jan. 1 to June 24
Evening star, June 24 to Dec. 31

MARS

Morning star, Jan. 1 to Apr. 30
Evening star, Apr. 30 to Dec. 31

JUPITER

Evening star, Jan. 1 to Apr. 17
Morning star, Apr. 17 to Nov. 8
Evening star, Nov. 8 to Dec. 31

SATURN

Morning star, Jan. 1 to Apr. 1
Evening star, Apr. 1 to Oct. 11
Morning star, Oct. 11 to Dec. 31

Mercury may be seen over the eastern horizon before sunrise for about 10 days before and after each western elongation, and similarly over the western horizon after sunset before and after eastern elongations. The phenomena section gives elongation times. At the Jan. elongation, Mercury is in s. Ophiuchus; at the Mar. and May elongations, it is in Pisces, considerably s.e. of the Great Square of Pegasus; at the July and Aug. elongations, it is in Leo, w. of Regulus; at the Nov. elongation, it is at the Ophiuchus–Scorpius border, near Antares; at the Dec. elongation, it is in n.w. Scorpius, n.w. of Antares.

Venus does not have an elongation or greatest brilliancy in 1952. In Jan., it goes from e. Libra to w. Sagittarius, passing n. of Antares; in Feb., it is in Sagittarius (n. of the dipper) and w. Capricornus; in Mar., it is in Capricornus and Aquarius; in Apr., mostly in s. Pisces; in May, June, and July, close to the sun; in Aug., it goes from w. Leo to w. Virgo, passing close to Regulus; in Sept., it crosses Virgo; in Oct., it is in Libra and n. Scorpius, going n. of Antares; in Nov., it is in s. Ophiuchus and Sagittarius, passing n. of the dipper; in Dec., it is going from n. Sagittarius across Capricornus.

Mars' positions are: in Jan., crossing Virgo; in Feb. and Mar., in w. Libra near Alpha Librae; Apr. to June, in w. Libra and e. Virgo; in July, in e. Virgo and w. Libra; in Aug., crossing Libra; in Sept., in Scorpius and Ophiuchus, crossing n. of Antares; in Oct., in s. Ophiuchus and w. Sagittarius, near the dipper; in Nov., in Sagittarius and w. Capricornus; in Dec., it crosses Capricornus going into Aquarius. Mars retrogrades from Mar. 24 to June 10.

Jupiter is crossing s. Pisces, Jan. to Apr.; from Apr. to mid-May, it is close to the sun; from mid-May to the end of year, it is in s. Aries. It goes retrograde from Sept. 9 to the end of year.

Saturn is in Virgo, n.w. of Spica, Jan. to Sept. From Oct. to Dec., it is in Virgo, passing n. of Spica in Nov. It retrogrades from Jan. 25 to June 11.

Uranus is in central Gemini, s.w. of Castor and Pollux. *Neptune* is in s. Virgo, roughly about 5° n. of Spica. *Pluto* is in w. Leo, near Epsilon Leonis. Uranus can be seen with opera glasses, Neptune with a small telescope, and Pluto with a large telescope.

The Sun

There are countless millions of far distant, superheated, self-luminous gaseous bodies called stars and each one is in itself a sun. Our Sun—the star around which our whole solar system revolves—is at a mean distance of 93,003,000 miles from the Earth, has a diameter of 865,390 miles, a surface temperature of about 11,000° F. and an interior temperature estimated at millions of degrees. It has a surface area approximately 12,000 times that of the Earth and in volume or bulk it is about 1,306,000 times the size of the Earth. It is, nevertheless, a star of only average size and temperature.

The Sun rotates on its axis and, by observation of Sun-spots (great whirling storms in the Sun's atmosphere) and Faculae (bright streaks or areas on the Sun's surface), astronomers have discovered that the rotational speed varies from approximately 24⅔ days at its equator to approximately 34 days near its poles. The Sun is just one star of the great Milky Way Galaxy that is rotating on its galactic axis at a rate that gives the Sun a galactic traveling speed of 175 miles per second. Furthermore, the Sun is moving toward a point known as "the apex of the Sun's way" in the constellation Hercules at a speed of about 12 miles per second.

What we see when we look at the Sun is the glowing surface called the Photosphere. Extending above this surface is the Sun's atmosphere consisting of two layers, one extending outward for a few hundred miles from the Sun's surface and called the Reversing Layer for spectroscopic reasons, the other an outer layer extending several thousand miles and called the Chromosphere because of its reddish color due mostly to superheated hydrogen, he-

lium and calcium. Solar "prominences" occasionally burst out from this layer and extend hundreds of thousands of miles above the Sun's surface. Beyond these layers of solar atmosphere and extending to great height is the outermost observable solar feature, the magnificent Corona of exceedingly slight density that provides an awesome spectacle for observers during total eclipses of the Sun.

The Brightest Stars

Star	Constellation	Position, 1950 R.A. h m	Dec. ° ′	Mag.	Dist. l.-y.	On meridian 9 p.m.
Sirius	Canis Major	6 42.9	−16 39	−1.6	8	Feb. 16
Canopus	Carina	6 22.8	−52 40	−0.9	650	Feb. 11
Alpha Centauri	Centaurus	14 36.2	−60 38	+0.1	4	June 16
Vega	Lyra	18 35.2	+38 44	0.1	23	Aug. 15
Capella	Auriga	5 13.0	+45 57	0.2	42	Jan. 24
Arcturus	Boötes	14 13.4	+19 27	0.2	32	June 10
Rigel	Orion	5 12.1	− 8 15	0.3	545	Jan. 24
Procyon	Canis Minor	7 36.7	+ 5 21	0.5	10	Mar. 2
Achernar	Eridanus	1 35.9	−57 29	0.6	70	Nov. 30
Beta Centauri	Centaurus	14 0.3	−60 8	0.9	130	June 7
Altair	Aquila	19 48.3	+ 8 44	0.9	18	Sept. 3
Betelgeuse	Orion	5 52.5	+ 7 24	0.9	300	Feb. 3
Aldebaran	Taurus	4 33.0	+16 25	1.1	54	Jan. 14
Spica	Virgo	13 22.6	−10 54	1.2	190	May 28
Pollux	Gemini	7 42.3	+28 9	1.2	31	Mar. 3
Antares	Scorpius	16 26.3	−26 19	1.2	170	July 14
Fomalhaut	Piscis Austrinus	22 54.9	−29 53	1.3	27	Oct. 20
Deneb	Cygnus	20 39.7	+45 6	1.3	465	Sept. 16
Regulus	Leo	10 5.7	+12 13	1.3	70	Apr. 9
Beta Crucis	Crux	12 44.8	−59 25	1.5	465	May 18
Eta Carinae	Carina	10 43.1	−59 25	1—7	...	Apr. 17
Alpha-one Crucis	Crux	12 23.8	−62 49	1.6	150	May 13
Castor	Gemini	7 31.4	+32 0	1.6	44	Feb. 28
Gamma Crucis	Crux	12 28.4	−56 50	1.6	...	May 15
Epsilon Canis Majoris	Canis Major	6 56.7	−28 54	1.6	325	Feb. 19
Epsilon Ursae Majoris	Ursa Major	12 51.8	+56 14	1.7	50	May 20
Bellatrix	Orion	5 22.4	+ 6 18	1.7	215	Jan. 27
Lambda Scorpii	Scorpius	17 30.2	−37 4	1.7	205	July 30
Epsilon Carinae	Carina	8 21.5	−59 21	1.7	325	Mar. 13
Mira	Cetus	2 16.8	− 3 12	2—9	250	Dec. 11
Epsilon Orionis	Orion	5 33.7	− 1 14	1.7	405	Jan. 29
Beta Tauri	Taurus	5 23.1	+28 34	1.8	115	Jan. 27
Beta Carinae	Carina	9 12.7	−69 31	1.8	...	Mar. 26
Alpha Trianguli Australis	Triangulum Australe	16 43.4	−68 56	1.9	130	July 18
Alpha Persei	Perseus	3 20.7	+49 41	1.9	190	Dec. 27
Eta Ursae Majoris	Ursa Major	13 45.6	+49 34	1.9	220	June 3
Gamma Geminorum	Gemini	6 34.8	+16 27	1.9	65	Feb. 14
Epsilon Sagittarii	Sagittarius	18 20.9	−34 25	1.9	165	Aug. 12
Alpha Ursae Majoris	Ursa Major	11 0.7	+62 1	1.9	90	Apr. 22
Delta Canis Majoris	Canis Major	7 6.4	−26 19	2.0	410	Feb. 22

Comets

In ancient times comets were supposed to be omens of sudden death, war, revolution or other dire events in human affairs and practically nothing was known of their true nature. They still offer puzzling problems to modern astronomers and, with about 1000 listed, new ones are being discovered and charted each year. In general, comets consist of a nucleus (sometimes lacking) surrounded by a head or "coma" (from the Greek word for hair because of its hazy appearance) from which extends the great tail that makes the passage of a comet through our skies such a striking spectacle. Comets come in varying sizes but the average diameter of the heads of a large number of observed comets is about 80,000 miles and the tail length may stretch out to more than 100,000,000 miles. The density of comets is so low, however, that we can see the stars through them and there is more actual material in one

cubic inch of ordinary air than in 2000 cubic miles of the tail of a comet.

The luminous tails of comets were believed, for many centuries, to be merely clouds high in our atmosphere. Tycho Brahe, eccentric Danish astronomer, proved that the comet he observed in 1577 was a celestial object far beyond the limit of the Earth's atmosphere. But the great forward step in the study of comets came when Edmund Halley, who became England's Astronomer Royal, carefully observed a comet in 1682, checked with previous observations, calculated its orbit and predicted its return to our skies in 1758 or 1759. Halley died in 1742 but the comet, now named after him, reappeared on schedule and a search through ancient records indicated that it had been observed in repeated appearances as far back as 240 B.C. Its last appearance was marked by its perihelion passage in 1910 and its next visit to our skies will occur in 1986. Halley's fulfilled prediction was the first definite proof that comets have regular orbits and time schedules or are, as the astronomers say, "periodic". The known "periods" (time intervals between appearances) of comets vary from the 3.3 years of Encke's Comet to thousands of years for wider travelers. No known great comets are scheduled for appearance in our sky this year.

A curious thing about comets is that their tails always trail from the head in a direction away from the Sun, so that when a comet is moving away from the Sun, the tail stretches out in front of the head. A comet's tail is so tenuous as to be almost a vacuum. The Earth passed through the tail of Halley's Comet in May, 1910, and on that occasion astronomers heard nothing, felt nothing and saw nothing to indicate that such passage had any observable effect on the Earth.

Twenty Famous Comets

Year and no.	Name of comet	Period
		years
1744	De Chéseaux's Comet	.....
1806	Biela's Comet	6.7
1811 I	Great Comet of 1811	3000
1812	Di Vico's Comet	70.7
1815	Olbers' Comet	74.0
1819 I	Encke's Comet	3.3
1819	Pons-Winnecke Comet	6.0
1835 III	Halley's Comet	76.3
1843 I	Great Comet of 1843	512.4
1844 II	Great Comet of 1844	102,050
1858 VI	Donati's Comet	2,040 (?)
1864 II	Great Comet of 1864	2,800,000
1871 III	Tuttle's Comet	13.8
1874 III	Coggia's Comet	6,000 (?)
1879	Brorsen's Comet	5.6
1881 II	Tebbutt's Comet	.....
1889 VI	Swift's 2nd Comet	7.0
1892 III	Holmes' Comet	6.9
1923	d'Arrest's Comet	6.6
1925 II	Comet Schwassmann-Wachmann	16.2

The Polar Auroras

It has been definitely established that Sun-spots are the direct cause of the greatest electrical show on Earth, a double feature, the Aurora Borealis (Northern Lights) and the Aurora Australis (Southern Lights). Sun-spots are magnetic storms of vast dimensions on the surface of the Sun and they shoot out electrified particles into space. Those that come toward the Earth are drawn toward the Earth's magnetic poles and consequently these magnetic poles are the radiating centers of those spectacular electromagnetic displays in the sky that we commonly call the "Northern Lights" or the "Southern Lights", depending upon whether we see them in the northern or southern hemisphere. The electrical particles from the Sun-spots strike the upper regions of our atmosphere where the component gases (nitrogen, oxygen and extremely minor amounts of argon, helium, neon, hydrogen and carbon dioxide) are very much rarefied and cause them to vibrate and glow in colors characteristic of the various elements, just as a neon sign glows when an electric charge is passed through it. The Sun-spots that cause auroral displays also cause the magnetic storms that interfere with radio reception, telephone, telegraph and cable traffic and other electromagnetic devices such as compasses and various aviation accessories.

There is an almost infinite variety to the auroral display. The lights may sweep across the sky in waves, in streamers or in folds like draped curtains. Or it may be a stationary glow. Sometimes there is little or no color in these waves, sheets or streamers of light. At other times the lights may be rich in red or green or pastel shades. Rose color and lavender and violet and purple are common. Blue is rare but has been seen. The "Northern Lights" have been seen as far south as New Orleans and the Florida peninsula and the "Southern Lights" have been seen as far north as New Zealand and Australia, but the maximum occurrence of these auroral displays is along the borders of the Arctic and Antarctic regions. Since these are atmospheric displays, our atmosphere must extend to the extreme height at which auroral lights are observed. Prof. Carl Störmer of the University of Oslo found this to be about 600 miles. He further found that no auroral lights came closer to the Earth's surface than 50 or 60 miles.

The Change of Seasons

It is enough to state that the Earth is nearer to the Sun in January than it is in July to convince those who live in the northern hemisphere that there must be some other explanation than that for the seasonal changes on our globe. The reason for the change in seasons is that the axis of rotation of the Earth is tipped to the perpendicular of the plane of its orbit around the sun at an angle of approximately 23½ degrees (more accurately, it varies in 1952 from 23° 26′ 49″.3 to 23° 26′ 52″.2), and consequently there is a proportional shifting of the angle of the Sun's rays falling on different portions of the Earth's surface at different times of year.

On or about June 21 the north end of the Earth's axis is tipped to its limit toward the Sun. In the northern hemisphere this is our Summer Solstice. We then have our longest days and receive a maximum of heat and light from the Sun whose perpendicular rays are falling on the Tropic of Cancer, 23½ degrees north of the Equator. Six months later, on or about Dec. 21, the Earth has reached a position in its orbit that finds the north end of its axis tipped at its maximum away from the Sun. This is our Winter Solstice. We then have our shortest days and receive a minimum of heat and light from the Sun that is hovering over the Tropic of Capricorn, 23½ degrees south of the Equator. Conditions are reversed in the southern hemisphere for obvious reasons. Their Winter is our Summer; their Summer our Winter. Twice a year, at the equinoxes in March and September, the Sun is on the Equator, the day is of equal length all over the world and each hemisphere receives the same amount of light and heat from the rays of the Sun.

If the effect in the change of the angle of the Sun's rays on the Earth's surface were instantaneous, our coldest period would be at the Winter Solstice and our warmest period at the Summer Solstice, but due to the blanket of atmosphere around the Earth and the cumulative effect in the heating or cooling of the Earth's surface, we have "the lag of the seasons" that brings our warmest and coldest periods some five or six weeks after the Sun is "farthest north" or "farthest south".

Seasons for the Northern Hemisphere, 1952

(Eastern Standard Time)

	d	h	m		
Mar.	20	11	14	A.M.	Sun enters sign of Aries; spring begins.
June	21	6	13	A.M.	Sun enters sign of Cancer; summer begins.
Sept.	22	9	24	P.M.	Sun enters sign of Libra; autumn begins.
Dec.	21	4	44	P.M.	Sun enters sign of Capricornus; winter begins.

Planet Table

	Mean distance from sun in millions of miles	Period of revolution around the sun	Eccentricity of orbit	Inclination to ecliptic	Diameter	Period of rotation on axis	Inclination of equator to orbit plane	Surface gravity (earth = 1)	Oblateness	Mean velocity in orbit	Max. stellar mag.
				° ′	miles		°			mi./sec.	
Sun	.....	.....	.....	.....	865,390	24^{d}.64†	7.2	28	0	.....	−26.7
Moon	.....	(27^{d}.322)*	0.05	5 8	2,159.9	27^{d}.322	6.7	0.16	0	0.63	−12.6
Mercury	36.00	87^{d}.969	0.21	7 0	3,008.5	88^{d}	7	0.28	0	30	−1.2
Venus	67.27	224^{d}.701	0.01	3 24	7,575.4	? ‡	?	0.85	0	22	−4.4
Earth	93.00	365^{d}.256	0.02	0 0	7,926.7§	23^{h} 56^{m}	23.4	1.00	1/297	18.5	.....
Mars	141.71	1^{y}.881	0.09	1 51	4,215.6	24^{h} 37^{m}	25.2	0.38	1/192	15	−2.8
Jupiter	483.88	11^{y}.862	0.05	1 18	88,698§	9^{h} 50^{m}†	3.1	2.6	1/15	8	−2.5
Saturn	887.14	29^{y}.458	0.06	2 29	75,060§	10^{h} 14^{m}†	26.8	1.1	1/9.5	6	−0.4
Uranus	1783.98	84^{y}.013	0.05	0 46	30,878	10 ¾^{h}	98	0.9	1/14	4	+5.7
Neptune	2795.45	164^{y}.793	0.01	1 46	27,700	15^{h}.8	29	1.1	1/40	3	+7.8
Pluto	3675.27	248^{y}.430	0.25	17 9	3,600	??	??	??	??	<3	+14

* Period of revolution around the earth.
† This is the rotation at the equator.
‡ Rotation of Venus is uncertain but is probably a few weeks.
§ The equatorial diameters of the earth, Jupiter, and Saturn are given; polar diameters are: earth, 7900.0 mi., Jupiter 82,780 mi., Saturn 67,170 mi.

The Moon

The planet Mars has two tiny satellites or moons, Jupiter has eleven, Saturn nine, Uranus five, and Neptune two. The Earth has one comparatively large satellite that is commonly called the Moon. It is a globe of approximately 2160 miles in diameter with a surface deeply pitted by great craters. It has no atmosphere that astronomers can detect and shines only by reflected light of the Sun. Though it seems bright to us at "full moon", it reflects only about 7 per cent of the light poured on it by the Sun.

The path of the Moon on its travels around the Earth is elliptical, with the Earth at one focus of the ellipse. The distance of the Moon from the Earth varies from 221,463 miles (perigee) to 252,710 miles (apogee), the average distance being 238,860 miles. The really curious thing about the Moon is that it revolves around the Earth in 27 days, 7 hours, 43 minutes, 11.47 seconds *and rotates on its axis in exactly the same time,* which is why we always see the same side of the Moon. Due to what are known as "librations in latitude and longitude" and also a "diurnal libration", we do see "around the edge of the Moon" at different times and in this manner a total of 59 per cent of the Moon's surface has been observed, but the other 41 per cent never has been seen by human eye.

Although the Moon revolves around the Earth in approximately 27⅓ days, it is, on the average, a matter of 29½ days (29 days, 12 hours, 44 minutes, 2.78 seconds) from one New Moon to the other because the Earth is moving around the Sun while the Moon is moving around the Earth and the "New Moon" depends upon the relative positions of the three bodies. If the planes of orbit of the Earth and the Moon coincided, there would be an eclipse of the Moon at every "Full Moon" and an eclipse of the Sun at every "New Moon", but the (approximately) 5-degree angle between the planes of orbit of the Earth and the Moon causes the Moon on most of its revolutions to miss the Earth's shadow and the Moon's shadow on most trips to miss falling on the Earth. The tidal effects of the Moon are, of course, well known. The "Spring Tides" occur at "Full Moon" and "New Moon" and the "Neap Tides" at "First Quarter" and "Last Quarter".

Eclipses in 1952

(1) *Partial eclipse of the moon, Feb. 10.* In general this eclipse is visible in western Asia, the western Indian Ocean, Africa, Europe, the Arctic areas, the Atlantic Ocean, North America (except the western and northwestern parts), and South America (except the southern regions). The magnitude of the eclipse is very small, only 0.09 of the moon's diameter being eclipsed.

Eastern standard time	d	h	m	
Moon enters penumbra	Feb. 10	5	6	P.M.
Moon enters umbra		7	3	
Mid-eclipse		7	39	
Moon leaves umbra		8	15	
Moon leaves penumbra		10	12	P.M.

(2) *Total eclipse of the sun, Feb. 25,* visible in the eastern hemisphere. The path of the total phase begins in the Atlantic Ocean off the coast of Africa, near the equator, and enters the coast of Africa just north of Libreville, French Equatorial Africa, a little before 7 A.M., universal time (G.C.T.). It goes northeast thru Bangui and Khartoum, and leaves the northeast coast just north of Port Sudan on the Red Sea; it crosses the middle of the Arabian peninsula and continues northeast into central Asia, where it ends at sunset. The maximum duration of the total phase, $3^m\ 9\frac{1}{2}^s$, is attained near Khartoum, about 11:07 A.M., 30th-meridian-east standard time. Partial phases are visible over Europe, most of Africa, and the western half of Asia.

(3) *Partial eclipse of the moon, Aug. 5,* invisible in North America, but visible in general in Australia, Asia (except the northeastern area), the Indian Ocean, Africa, Europe (except the western region), and the eastern Atlantic Ocean. Mid-eclipse occurs at 11:47 P.M., 60th-meridian-east standard time. At the maximum eclipse, a little over 0.5 of the moon's diameter is eclipsed.

(4) *Annular eclipse of the sun, Aug. 20,* visible in South America. The path of the annular phase begins at sunrise in the south Pacific Ocean off the coast of South America. It enters the coast at Callao, near Lima (Peru) at 9:20 A.M., 75th-meridian standard time, and travels southeast over Corocoro and Potosí (Bolivia), Corrientes (Argentina), and Uruguaiana (Brazil), leaving the coast of South America at Rocha (Uruguay) at 12:00 noon, 60th-meridian time. The path goes east of South Georgia and the South Sandwich Islands and ends at sunset in the south Atlantic Ocean. The maximum duration of the annular phase is $6^m\ 41^s$, occurring near Potosí. Partial phases are observable in all of South America, the southern half of Mexico, and the West Indies.

Astronomical Constants

1 light-year	5,880,000,000,000 mi.
velocity of light	186,272 mi./sec.
astronomical unit or distance earth-to-sun	93,003,000 mi.
mean distance, earth to moon	238,860 mi.
general precession	50".26
obliquity of the ecliptic	23° 27′ 8".26—0".4684(t—1900) *
equatorial radius of the earth	3963.34 statute mi.
polar radius of the earth	3949.99 statute mi.
earth's mean radius	3958.89 statute mi.
oblateness of the earth	$\frac{1}{297.0}$
equatorial horizontal parallax of the moon	57′ 2".70
earth's mean velocity in orbit	18.5 mi./sec.
sidereal year	$365^d.2564$
tropical year	$365^d.2422$
sidereal month	$27^d.3217$
synodic month	$29^d.5306$
sidereal day	$23^h\ 56^m\ 4^s.091$ of mean-solar time
mean solar day	$24^h\ 3^m\ 56^s.555$ of sidereal time

* t refers to the year in question, for example 1948.

The Atmosphere

The atmosphere of the Earth—the blanket of air that surrounds our globe and is essential to life—is of interest to astronomers because of its effect on the light that comes to us from heavenly bodies. Air has weight and volume. It refracts (bends or changes the direction of) light rays that enter it. Due to this refraction, we are able to see the Sun and the Moon before they rise and after they set. The "twinkling" of the stars is caused by convection currents in the air that have a rapidly changing refractive effect on the light from the stars. Our twilight is produced by the diffusion in the atmosphere of light from the Sun when it is below the horizon. Meteors become visible when they are heated to incandescence by friction with the atmosphere when, from outer space, they plunge into it at terrific speed.

Prof. Carl Störmer of the University of Oslo measured the height of the atmosphere and found it to be more than 600 miles, but about half of it by weight is below 18,000 feet. Although we may remark blandly that something is "as light as air", the Earth's atmosphere in bulk is of such enormous weight that at sea level it exerts a pressure of approximately 14.7 pounds per square inch. At higher levels, of course, the pressure is less.

Chemically, the atmosphere is composed of nitrogen (approximately 78 per cent by volume), oxygen (approximately 21 per cent by volume), and extremely minor amounts (about 1 per cent in all by volume) of argon, neon, helium, hydrogen and carbon dioxide. There is also present in the air a varying amount of water vapor, which is known as humidity and is distressing when the percentage is high in warm weather.

Important Meteor Showers

Date	Meteor stream	Radiant in constellation
Jan. 1–4	Quadrantids	Boötes
Feb. 5–10	Alpha Aurigids	Auriga
Mar. 10–12	Zeta Boötids	Boötes
Apr. 19–23	Lyrids	Hercules
May 1–6	May Aquarids	Aquarius
May 30	Eta Pegasids	Pegasus
June 27–30	Pons-Winnecke meteors	Draco
July 14	Alpha Cygnids	Cygnus
July 26–31	Delta Aquarids	Aquarius
Aug. 10–14	Perseids	Cassiopeia
Aug. 10–20	Kappa Cygnids	Cygnus
Aug. 21–31	Zeta Draconids	Draco
Sept. 22	Alpha Aurigids	Auriga
Oct. 2	Quadrantids	Boötes
Oct. 9	Giacobinids	Draco
Oct. 18–23	Orionids	Orion
Nov. 14–18	Leonids	Leo
Dec. 10–13	Geminids	Gemini

Meteors and Meteorites

Meteorites are meteors that have come down to Earth. Meteors are masses of mineral or metal or both that plunge into the Earth's atmosphere at great speed and become incandescent from the resultant friction so that they are seen in the sky as "fireballs" (bolides) or "shooting stars". The "fireballs" are the larger, make a greater flash across the sky and sometimes explode. Meteors come in all sizes but most of them verge on the microscopic and burn up completely in the flash that makes them visible from 40 to 60 miles above the Earth's surface. Millions of them enter our atmosphere every twenty-four hours and probably not more than one or two a day survive to strike the ground as meteorites.

The largest meteorite ever found is located near Grootfontein, Southwest Africa, and its weight is estimated between 50 and

70 tons. The second largest meteorite (the Ahnighito, weight 36½ tons) was found by Admiral Peary, Arctic explorer, at Cape York, Greenland, and is now on exhibition in the Hayden Planetarium, New York City. The largest meteorite found on United States soil is the Willamette (weight 15½ tons), which fell near Portland, Oreg., and is now in the American Museum of Natural History, New York City.

Craters produced by the fall of meteorites have been found in many countries. The first to be recognized and the largest known is Meteor Crater in Arizona, a depression about 4,000 feet in diameter, about 600 feet deep, and with exterior walls rising 150 feet above the surrounding plain. Meteor craters have been found near Odessa, Texas; Haviland, Kansas; in the Arabian Desert; in Central Australia and—a notable group of fifty or more—in the region of the Stony Tunguska River in northern Siberia.

Many meteors travel in swarms, believed in some cases to be disintegrated comets. The Perseid shower that occurs annually Aug. 10–14 is thought by some astronomers to be all that remains of Tuttle's Comet and the Leonid shower, which reaches a maximum in mid-November every 33 years, similarly is suspected of being what is left of Tempel's Comet. The Leonid shower of 1833 was the greatest meteor display of which astronomers have record.

Projection Planetaria

Dr. Robert G. Aitken, Director Emeritus of the Lick Observatory, called the Zeiss Projector in planetarium use "the most remarkable instrument that has ever been devised to exhibit impressively, and with the illusion of reality, the motions of the heavenly bodies and the phenomena that result from these motions". The first of these projectors was invented and developed by Dr. Walter Bauersfeld at the Carl Zeiss plant at Jena, Germany, and the first planetarium in which it was put to use was in the Deutsches Museum in Munich, May, 1925. Between that time and the outbreak of World War II, twenty-seven other such Zeiss Projectors were constructed and shipped for use in planetaria spread around the world. Some smaller planetaria, with other projectors, have been built and are in operation in various places in the United States and Canada.

The Zeiss Projector planetaria in the United States are, in the order in which they were built:

Adler Planetarium, 900 E. Achsah Bond Drive, Chicago 5, Ill.
Director, Wagner Schlesinger.

Fels Planetarium, 20th St., Benjamin Franklin Parkway, Philadelphia 3, Pa.
Director, I. M. Levitt.

Griffith Planetarium, P.O. Box 9787, Los Feliz Station, Los Angeles 27, Calif.
Director, Dinsmore Alter.

Hayden Planetarium, 81st St., Central Park West, New York 24, N. Y.
Chairman, Robert R. Coles.

Buhl Planetarium, Federal and West Ohio Sts., Pittsburgh 12, Pa.
Director, Arthur L. Draper.

Morehead Planetarium, University of North Carolina, Chapel Hill, N. C.
Manager: A. Jenzano.

Notable Telescopes of the World

Refractor Telescopes

Size in inches	Observatory	Location
40	Yerkes	Williams Bay, Wis.
36	Lick	Mt. Hamilton, Calif.
32.7	Paris (Univ. of)	Meudon, France
31.5	Astrophysical	Potsdam, Germany
30	Allegheny	Pittsburgh, Pa.
30	Bischoffsheim	Nice, France
30	Poulkova	Leningrad, U.S.S.R.

Reflector Telescopes

200	Palomar	Palomar Mt., Calif.
100	Mt. Wilson	Pasadena, Calif.
82	McDonald	Mt. Locke, Texas
74	Dunlap	Richmond Hill, Ont.
72	Lord Ross (dismantled)	Parsonstown, Ireland
72	Dominion Astrophysical	Victoria, B. C.
69	Perkins	Delaware, Ohio
61	Harvard	Oak Ridge, Mass.
60	Bloemfontein	Bloemfontein, U. of S. Af.
60	Mt. Wilson	Pasadena, Calif.
60	Córdoba	Bosque Alegre, Argentina

Astronomical Photography

Since almost all astronomical research is now carried on by photographing the heavenly bodies, cameras and telescopes designed for this purpose are of the utmost importance.

What many astronomers consider the greatest advance in the making of astronomical instruments in the last fifty years was the production of the Schmidt Camera. The details of construction and method of operation of this camera were made known in 1930 by Bernhard Schmidt of the Hamburg Observatory at Bergedorf, Germany. The Schmidt Camera takes photographs with large fields of vision and sharp definition at much greater speed than was possible with earlier apparatus. Schmidt Cameras as fast as f/0.6 have been made, and those with a speed of f/1 are common. These remarkable cameras have been installed at many observatories in various parts of the world.

Symbols

☉ the sun	♃ Jupiter	☌ occultation
☾ the moon	♄ Saturn	☍ opposition
☿ Mercury	♅ Uranus	● new moon
♀ Venus	♆ Neptune	☽ first quarter
⊕ the earth	♇ Pluto	○ full moon
♂ Mars	☌ conjunction	☾ last quarter

Signs of the Zodiac and average date of sun entering

1. ♈ Aries, the Ram, Mar. 21
2. ♉ Taurus, the Bull, Apr. 20
3. ♊ Gemini, the Twins, May 21
4. ♋ Cancer, the Crab, June 21
5. ♌ Leo, the Lion, July 23
6. ♍ Virgo, the Virgin, Aug. 23
7. ♎ Libra, the Balance, Sept. 23
8. ♏ Scorpius, the Scorpion, Oct. 23
9. ♐ Sagittarius, the Archer, Nov. 22
10. ♑ Capricornus, the Goat, Dec. 22
11. ♒ Aquarius, the Water-bearer, Jan. 20
12. ♓ Pisces, the Fishes, Feb. 19

Phenomena, 1952 (Eastern Standard Time)

January

d	h	m	
2	12	— noon	☌ ♂ Ψ, ♂ 10′ north
2	4	28 p.m.	☌ ♂ Spica, ♂ 4°10′ north
4	4	— p.m.	⊕ at perihelion
6	3	— a.m.	☿ at greatest elongation w., 23°2′
9	6	48 a.m.	☌ ♀ Antares, ♀ 6°46′ north
13	—	— (eve.)	☌ Ψ Spica, Ψ 4°0′ north
21	—	— —	♄ on meridian at 5 a.m., L.C.T.
24	8	15 p.m.	♃'s brightest moons all on e. side

February

1	—	— —	☾, max. libration in long., w. limb exposed
2	—	— (eve.)	☌ Ψ Spica, Ψ 4°1′ north
5	—	— —	♄ on meridian at 4 a.m., L.C.T.
6	1	58 a.m.	☾ at max. declination, +28°9′8″
14	8	0 p.m.	♃'s brightest moons all on e. side
15	—	— —	♂ on meridian at 5 a.m., L.C.T.
20	—	— —	♄ on meridian at 3 a.m., L.C.T.
24	8	0 p.m.	♃'s brightest moons all on w. side

March

2	—	— —	☾, max. libration in lat., s. limb exposed
7	—	— —	♂ on meridian at 4 a.m., L.C.T.
9	9	2 p.m.	☾ on ecliptic in descending node
16	2	30 a.m.	☌ ♂ ☾, ♂ 7°18′ north
18	5	— p.m.	☿ at greatest elongation east, 18°31′
20	—	— —	♄ on meridian at 1 a.m., L.C.T.
26	—	— —	☍ ☿, 3:00–3:27 p.m., P.S.T. for Vancouver
26	5	50 p.m.	☌ ☿ ☾, ☿ 44′ south

April

1	10	6 p.m.	☌ ♁ ☾, ♁ 3°36′ south
3	—	— —	♄ on meridian at 0 a.m., L.C.T.
7	—	— —	♂ on meridian at 2 a.m., L.C.T.
12	—	— —	Vesta on meridian at 9 p.m., L.C.T.
14	9	10 p.m.	☾ at max. declination, —27°55′50′
20	8	— a.m.	Titan e. elongation from ♄
21	6	3 a.m.	☾ on celestial equator
30	—	— —	♂ on meridian at 0 a.m., L.C.T.

May

1	—	— —	♄ on meridian at 10 p.m., L.C.T.
3	6	— a.m.	☿ at greatest elongation w., 26°45′
5	9	— a.m.	☌ ♀ ♃, ♀ 19′ south
6	8	48 p.m.	☌ ♄ ☾, ♄ 6°46′ north
8	9	— a.m.	♂ nearest ⊕, distance 51,917,800 mi.
11	—	— —	♂ on meridian at 11 p.m., L.C.T.
14	2	— a.m.	Titan, w. elongation from ♄
30	—	— —	♄ on meridian at 8 p.m., L.C.T.

June

1	8	10 p.m.	☾ on celestial equator
5	—	— —	♂ on meridian at 9 p.m., L.C.T.
6	—	— —	☍ π Scorpii, 8:35–9:31 p.m., C.S.T., Tex.
14	10	— p.m.	Titan, w. elongation from ♄
20	4	0 a.m.	♃'s brightest moons all on w. side
20	—	— —	♂ on meridian at 8 p.m., L.C.T.
30	4	0 a.m.	♃'s brightest moons all on e. side.

July

d	h	m	
2	—	— —	☾, max. libration in long., w. limb exposed
2	9	— p.m.	⊕ at aphelion
3	10	— a.m.	☌ ♀ ♁, ♀ 21′ north
15	4	— p.m.	☿ at greatest elongation e., 26°40′
15	11	19 p.m.	☌ ♃ ☾, ♃ 6°36′ south
26	3	15 a.m.	♃'s brightest moons all on w. side
27	3	15 a.m.	♃'s brightest moons all on e. side
27	11	3 p.m.	☌ ♄ ☾, ♄ 7°3′ north

August

8	7	32 p.m.	☌ ♀ Regulus, ♀ 1°5′ north
9	2	45 a.m.	♃'s brightest moons all on w. side
9	—	— —	♃ on meridian at 6 a.m., L.C.T.
10	0	— a.m.	Titan at e. elongation from ♄
23	2	45 a.m.	♃'s brightest moons all on w. side
27	—	— —	☾, max. libration in lat., n. limb exposed
27	11	35 p.m.	☌ ♂ ☾, ♂ 3°16′ north
29	11	— p.m.	☿ at greatest elongation w., 18°11′

September

6	2	46 p.m.	☌ ☿ Regulus, ☿ 0°52′ north
8	9	51 p.m.	☌ ♃ ☾, ♃ 6°44′ south
10	—	— —	♃ on meridian at 4 a.m., L.C.T.
10	2	31 p.m.	☌ ♂ Antares, ♂ 2°35′ north
15	6	— p.m.	☌ ♀ ♄, ♀ 1°37′ south
16	2	— a.m.	♃'s brightest moons all on e. side
16	4	6 a.m.	☾ on ecliptic in descending node
21	2	59 a.m.	☌ ♀ Spica, ♀ 2°49′ north

October

7	1	30 a.m.	♃'s brightest moons all on e. side
8	4	5 p.m.	☾ at max. declination, +27°32′41″
9	—	— —	♃ on meridian at 2 a.m., L.C.T.
10	1	— p.m.	♂ at max. declination, —25°21′27″
12	1	30 a.m.	♃'s brightest moons all on w. side
16	3	53 a.m.	☾ on celestial equator
29	0	13 a.m.	☌ ♀ Antares, ♀ 3°25′ north

November

5	—	— —	♃ on meridian at 0 a.m., L.C.T.
7	0	24 a.m.	☌ ♁ ☾, ♁ 2°2′ south
8	7	38 a.m.	☌ ☿ Antares, ☿ 1°52′ north
9	6	32 a.m.	☌ ♄ Spica, ♄ 4°40′ north
9	10	— p.m.	☿ at greatest elongation e., 22°59′
17	9	— p.m.	☌ ♄ Ψ, ♄ 43′ north
20	—	— —	☍ σ Sagittarii, 5:10–6:18 p.m., E.S.T.
26	0	0 a.m.	♃'s brightest moons all on e. side

December

1	—	— —	♃ on meridian at 10 p.m., L.C.T.
5	—	— —	☍ δ Cancri, 10:44–11:25 p.m., E.S.T., New Eng.
18	5	— p.m.	☿ at greatest elongation w., 21°37′
20	9	21 p.m.	☌ ♂ ☾, ♂ 2°12′ south
21	3	22 a.m.	☌ ☿ Antares, ☿ 6°32′ north
22	10	45 p.m.	♃'s brightest moons all on w. side
23	10	45 p.m.	♃'s brightest moons all on e. side
30	—	— —	♃ on meridian at 8 p.m., L.C.T.

★ 1952 ★

CROSSWORD PUZZLE GUIDE

Since most persons who can read and write occasionally or frequently indulge in the indoor pastime of working crossword puzzles, this section is offered as a handy help to solvers who may be stumped now and then for a two-letter word meaning "three-toed sloth" or a three-letter word meaning "native of Mindanao."

We have those two words here, and plenty more. We have the Greek, Roman, Norse and Egyptian deities of myth and legend. And we have those "Greek letters" and "months of the Jewish year" so often needed to fill out little gaps in a crossword solution.

The reader is warned that in mythology there are many confusing and even conflicting accounts of the identities and adventures of the various gods, goddesses and lesser figures. There is also considerable variation in the spelling of names, places and things. For instance, you may spell it ICON, IKON or EIKON, and similar options are plentiful all along the crossword line. If the reader will keep further possible variations in mind, it may help at a critical point in some crossword puzzle. Good hunting!

JOHN KIERAN, *Editor*

First Aid to Crossword Puzzlers

(We cannot, of course, begin to list all the odd words you will meet with in your daily and Sunday crossword puzzles, for such words run into many thousands. But we have tried to include those which turn up most frequently, as well as many others which should be of help to you when you are unable to go any further.

Also, we do not guarantee that the definitions in your puzzle will be exactly the same as ours, although we have checked every word with a standard dictionary and have followed its definition.

In nearly every case, we have used as the key word the principal noun of the definition, rather than any adjective, adjective phrase, or noun used as an adjective. And, to simplify your searching, we have grouped the words according to the number of spaces you have to fill.)

Words of Two Letters

Ambary, DA
And (French, Latin), ET
Article (Arabic), AL
  (French), LA, LE, UN
  (Spanish), EL, LA, UN
At the (French), AU
  (Spanish), AL
Behold, LO
Bird: Hawaiian, OO
Birthplace: Abraham's, UR
Bone, OS
Buddha, FO
Butterfly: Peacock, IO
Champagne, AY
Chaos, NU
Chief: Burmese, BO
Coin: Roman, AS
  Siamese, AT
Concerning, RE
Dialect: Chinese, WU
Double (Egy. relig.), KA
Drama: Japanese, NO
Egg (comb. form), OO
Esker, OS
Eye (Scotch), EE
Factor: Amplification, MU
Fifty (Greek), NU
Fish: Carplike, ID
Force, OD
Forty (Greek), MU
From (French, Latin, Spanish), DE
  (Latin prefix), AB
From the (French), DU
God: Babylonian, EA, ZU
  Egyptian sun, KA
  Hindu unknown, KA
  Semitic, EL
Goddess: Babylonian, AI
  Greek earth, GE
Gold (heraldry), OR
Gulf: Arctic, OB
Heart (Egy. relig.) AB
Indian: South American, GE
King: Of Bashan, OG
Language: Artificial, RO
  Assamese, AO
Lava: Hawaiian, AA
Letter: Greek, MU, NU, PI, XI
  Hebrew, HE, PE
Lily: Palm, TI
Measure: Annamese, LY
  Chinese, HO, HU, KO, LI, MU, PU, TO, TU
  Japanese, GO, JO, MO, RI, SE, TO
  Metric land, AR
  Netherlands, EL
  Portuguese, PE
  Siamese, WA
  Swedish, AM
  Type, EM, EN
Monk: Buddhist, BO
Month: Jewish, AB
Mouth, OS
Mulberry: Indian, AL
Native: Burmese, WA
Note: Of Scale, DO, FA, MI, LA, RE, TI
Of (French, Latin, Spanish), DE
Of the (French), DU
One (Scotch), AE
Pagoda: Chinese, TA
Plant: East Indian fiber, DA
Ridge: Sandy, AS, OS
River: Russian, OB
Sloth: Three-toed, AI
Soul (Egy. relig.), BA
Sound: Hindu mystic, OM
Suffix: Comparative, ER
The. *See* Article
To the: French, AU
  Spanish, AL
Tree: Buddhist sacred, BO
Tribe: Assamese, AO
Type: Jumbled, PI
Weight: Annamese, TA
  Chinese, LI
  Danish, ES
  Japanese, MO
  Roman, AS
Whirlwind: Faeroe Is., OE
Yes (German), JA
  (Italian, Spanish), SI
  (Russian), DA

Words of Three Letters

Adherent, IST
Again, BIS
Age, ERA
Antelope: African, GNU, KOB
Apricot: Japanese, UME
Article (German), DAS, DEM, DEN, DER, DES, DIE, EIN
(French), LES, UNE
(Spanish), LAS, LOS, UNA
Banana: Polynesian, FEI
Barge, HOY
Bass: African, IYO
Beak, NEB, NIB
Beard: Grain, AWN
Beetle: June, DOR
Being, ENS
Berry: Hawthorn, HAW
Beverage: Hawaiian, AVA
Bird: Australian, EMU
Crowlike, JAY
Extinct, MOA
Fabulous, ROC
Frigate, IWA
Parson, POE, TUE, TUI
Sea, AUK
Blackbird, ANI, ANO
Born, NEE
Bronze: Roman, AES
Bugle: Yellow, IVA
By way of, VIA
Canton: Swiss, URI
Cap: Turkish, FEZ
Catnip, NEP
Character: In "Faerie Queene," UNA
Coin: Afghan, PUL
Albanian, LEK
British Guiana, BIT
Bulgarian, LEV, LEW
French, ECU, SOU
Indian, PIE
Japanese, SEN, YEN
Korean, WON
Lithuanian, LIT
Macao, Timor, AVO
Palestinian, MIL
Persian, PUL
Peruvian, SOL
Rumanian, BAN, LEU, LEY
Scandinavian, ORE
Siamese, ATT
See also Money of account
Collection: Facts, ANA
Commune: Belgian, ANS, ATH
Netherlands, EDE, EPE
Community: Russian, MIR
Constellation: Southern, ARA
Contraction: Poetic, EEN, EER, OER
Covering: Apex of roof, EPI
Crab: Fiddler, UCA
Crag: Rocky, TOR
Cry: Crow, rook, raven, CAW
Cup: Wine, AMA
Cymbal: Oriental, TAL, ZEL
Disease: Silkworm, UJI
Division: Danish territorial, AMT
Geologic, EON
Doctrine, ISM
Dowry, DOT
Dry (French), SEC
Dynasty: Chinese, CHI, HAN, SUI, WEI, YIN
Eagle: Sea, ERN
Earth (comb. form), GEO
Egg: Louse, NIT
Eggs: Fish, ROE
Emmet, ANT
Enzyme, ASE
Equal (comb. form), ISO
Extension: building, ELL
Far (comb. form), TEL
Farewell, AVE
Fiber: Palm, TAL
Finial, EPI
Fish: Carplike, IDE
Pikelike, GAR
Flatfish, DAB
Fleur-de-lis, LIS, LYS
Food: Hawaiian, POI
Formerly, NEE
Friend (French), AMI
Game: Card, LOO
Garment: Camel-hair, ABA
Gateway, DAR
Gazelle: Tibetan, GOA
Genus: Ducks, AIX
Grasses, POA
Grasses (maize), ZEA
Herbs or shrubs, IVA
Lizards, UTA
Rodents (incl. house mice), MUS
Ruminants (incl. cattle), BOS
Swine, SUS
Gibbon: Malay, LAR
God: Assyrian, SIN
Babylonian, ABU, ANU, BEL, HEA, SIN, UTU
Irish sea, LER
Phrygian, MEN
Polynesian, ORO
Goddess: Babylonian, AYA
Etruscan, UNI
Hindu, SRI, UMA, VAC
Teutonic, RAN
Governor: Algerian, DEY
Turkish, BEY
Grampus, ORC
Grape, UVA
Grass: Meadow, POA
Gypsy, ROM
Hail, AVE
Hare: Female, DOE
Hawthorn, HAW
Hay: Spread for drying, TED
Herb: Japanese, UDO
Perennial, PIA
Used for blue dye, WAD
Herd: Whales, GAM, POD
Hero: Spanish, CID
High (music), ALT
Honey (pharm.), MEL
Humorist: American, ADE
I (Latin), EGO
I love (Latin), AMO
Indian: Algonquian, FOX, SAC, WEA
Chimakuan, HOH
Keresan, SIA
Mayan, MAM
Shoshonean, UTE
Siouan, KAW, OTO
South American, ITE, ONA, URO, URU, YAO
Tierra del Fuego, ONA
Wakashan, AHT
Ingot, PIG
Inlet: Narrow, RIA
Island: Cyclades, IOS
Dodecanese, COS, KOS
(French), ILE
River, AIT
Jackdaw, DAW
John (Gaelic), IAN
Keelbill, ANI, ANO
Kiln, OST
King: British legendary, LUD
Kobold, NIS
Lace: To make, TAT
Lamprey, EEL
Language: Artificial, IDO
Bantu, ILA
Siamese, LAO, TAI
Leaf: Palm, OLA, OLE
Leaving, ORT
Left: Cause to turn, HAW
Letter: Greek, CHI, ETA, PHI, PSI, RHO, TAU
Hebrew, MEM, NUN, SIN, TAV, VAU
Lettuce, COS
Life (comb. form), BIO
Lily: Palm, TOI
Lizard, EFT
Louse: Young, NIT
Love (Anglo-Irish), GRA
Lute: Oriental, TAR
Macaw: Brazilian, ARA
Marble, TAW
Match: Shooting (French), TIR
Meadow, LEA
Measure: Abyssinian, TAT
Algerian, PIK
Annamese, GON, MAU, NGU, QUO, SAO, TAO, TAT
Arabian, DEN, SAA

Belgian, VAT
Bulgarian, OKA, OKE
Chinese, FEN, TOU, YIN
Cloth, ELL
Cyprus, OKA, OKE, PIK
Czech, LAN, SAH
Danish, FOD, MIL, POT
Dominican Republic, ONA
Dutch, old, AAM
East Indian, KIT
Egyptian, APT, HEN, PIK, ROB
Electric, MHO, OHM
Energy, ERG
English, PIN
Estonian, TUN
French, POT
German, AAM
Greek, PIK
Hebrew, CAB, HIN, KOR, LOG
Hungarian, AKO
Icelandic, FET
Indian, GAZ, GUZ, JOW, KOS
Japanese, BOO, CHO, KEN, RIN, SHO, SUN, TAN
Malabar, ADY
Metric land, ARE
Netherlands, KAN, KOP, MUD, VAT, ZAK
Norwegian, FOT, POT
Persian, GAZ, GUZ, MOU, ZAR, ZER
Polish, CAL
Rangoon, DHA, LAN
Roman, PES, URN
Russian, FUT, LOF
Scotch, COP
Siamese, KEN, NIU, RAI, SAT, SEN, SOK, WAH, YOT
Somaliland, TOP
Spanish, PIE
Straits Settlements, PAU, TUN
Swedish, ALN, FOT, MIL, REF, TUM
Swiss, POT
Tunisian, SAA
Turkish, OKA, OKE, PIK
Wire, MIL
Würtemberg, IMI
Yarn, LEA
Yugoslavian, OKA, RIF
Milk, LAC
Milkfish, AWA
Moccasin, PAC
Money: Yap stone, FEI
Money of Account: Anglo-Saxon, ORA, ORE
French, SOU
Indian, LAC
Japanese, RIN
Oman, GAJ
Virgin Islands, BIT
See also Coin
Monkey: Capuchin, SAI
Morsel, ORT
Mother: Peer Gynt's, ASE
Mountain: Asia Minor, IDA
Mulberry: Indian, AAL, ACH, AWL
Muttonbird: New Zealand, OII
Nahoor, SNA
Native: Mindanao, ATA
Neckpiece, BOA
Newt, EFT
No (Scotch), NAE
Note: Guido's highest, ELA
Of scale, SOL
Nursemaid: Oriental, AMA, IYA
Ocher: Yellow, SIL
One (Scotch), YIN
Ornament: Pagoda, TEE
Oven: Polynesian, UMU
Ox: Tibetan, YAK
Pagoda: Chinese, TAA
Parrot: Hawk, HIA
New Zealand, KEA
Part: Footlike, PES
Particle: Electrified, ION
Pasha, DEY
Pass: Mountain, COL
Paste: Rice, AME
Pea: Indian split, DAL
Peasant: Philippine, TAO
Penpoint, NEB, NIB
Piece out, EKE
Pigeon, NUN
Pine: Textile screw, ARA
Pistol (slang), GAT
Pit: Baking, IMU
Plant: Pepper, AVA
Play: By Capek, RUR
Poem: Old French, DIT
Porgy: Japanese, TAI
Priest: Biblical high, ELI
Prince: Ethiopian, RAS
Pseudonym: Dickens', BOZ
Queen: Fairy, MAB
Quince: Bengal, BEL
Record: Ship's, LOG
Refuse: Flax (Scotch), PAB, POB
Resin, LAC
Resort, SPA
Revolver (slang), GAT
Right: Cause to turn, GEE
River: Scotch or English, DEE (Spanish), RIO
Swiss, AAR
Room: Harem, ODA
Rootstock: Fern, ROI
Rose (Persian), GUL
Ruff: Female, REE
Rule: Indian, RAJ
Sailor, GOB, TAR
Saint: Female (abbr.), STE
Mohammedan, PIR
Salt, SAL
Sash: Japanese, OBI
Scrap, ORT
Seed: Poppy, MAW
Small, PIP
Self, EGO
Serpent: Vedic sky, AHI
Sesame, TIL
Sheep: Female, EWE
Indian, SHA
Male, RAM
Sheepfold (Scotch), REE
Shelter, LEE
Shield, ECU
Shooting match (French), TIR
Shrew: European, ERD
Shrub: Evergreen, YEW
Silkworm, ERI
Snake, ASP, BOA
Soak, RET
Son-in-law: Mohammed's, ALI
Sorrel: Wood, OCA
Spade: Long, narrow, LOY
Spirit: Malignant, KER
Spot: Playing-card, PIP
Spread for drying, TED
Spring: Mineral, SPA
Sprite: Water, NIX
Statesman: Japanese, ITO
Stern: Toward, AFT
Stomach: Bird's, MAW
Street (French), RUE
Summer (French), ETE
Sun, SOL
Swamp, BOG, FEN
Swan: Male, COB
Tea: Chinese, CHA
Temple: Shinto, SHA
The. *See* Article
Thing (law), RES
Title: Etruscan, LAR
Monk's, FRA
Portuguese, DOM
Spanish, DON
Turkish, AGA, BEY
Tool: Cutting, ADZ, AXE
Mining, GAD
Piercing, AWL
Tree: Candlenut, AMA
Central American, EBO
East Indian, SAJ, SAL
Evergreen, YEW
Hawaiian, KOA, KOU
Indian, BEL, DAR
Linden, LIN
New Zealand, AKE
Philippine, DAO, TUA, TUI
Rubber, ULE
South American, APA
Tribe: New Zealand, ATI
Tumeric, REA
Twice, BIS
Twin: Siamese, ENG
Uncle (dialect), EAM, EME
Veil: Chalice, AER, AIR
Vessel: Wine, AMA
Vestment: Ecclesiastical, ALB

Vetch: Bitter, ERS
Victorfish, AKU
Vine: New Zealand, AKA
Philippine, IYO
Wallaba, APA
Wapiti, ELK
Water (French), EAU
Waterfall, LIN
Watering place: Prussian, EMS
Weave: Designating plain, UNI
Weight: Annamese, CAN
Bulgarian, OKA, OKE
Burmese, MOO, VIS
Chinese, FEN, HAO, KIN, SSU, TAN, YIN
Cyprus, OKA, OKE
Danish, LOD, ORT, VOG
East Indian, TJI
Egyptian, KAT, OKA, OKE
English, for wool, TOD
German, LOT
Greek, MNA, OKA, OKE
Indian, SER
Japanese, FUN, KIN, RIN, SHI
Korean, KON
Malacca, KIP
Mongolian, LAN
Netherlands, ONS
Norwegian, LOD
Polish, LUT
Rangoon, PAI
Roman, BES
Russian, LOT
Siamese, BAT, HAP, PAI
Swedish, ASS, ORT
Turkish, OKA, OKE
Yugoslavian, OKA, OKE
Whales: Herd, GAM, POD
Wildebeest, GNU
Wing, ALA
Witticism, MOT
Wolframite, CAL
Worm: African, LOA
Wreath: Hawaiian, LEI
Yale, ELI
Yam: Hawaiian, HOI
Yes (French), OUI
Young: Bring forth, EAN
Z (letter), ZED

Words of Four Letters

Aborigine: Borneo, DYAK
Agave, ALOE
Animal: Footless, APOD
Ant: White, ANAI, ANAY
Antelope: African, ASSE, BISA, GUIB, KOBA, KUDU, ORYX, POKU, PUKU, TOPI, TORA
Apoplexy: Plant, ESCA
Apple, POME
Apricot, ANSU
Ardor, ELAN
Armadillo, APAR, PEBA, PEVA, TATU
Ascetic: Mohammedan, SUFI
Association: Chinese, TONG
Astronomer: Persian, OMAR
Avatar: Of Vishnu, RAMA
Axillary, ALAR
Band: Horizontal (heraldry), FESS
Barracuda, SPET
Bark: Mulberry, TAPA
Base: Column, DADO
Bearing (heraldry), ORLE
Beer: Russian, KVAS
Beige, ECRU
Being, ESSE
Beverage: Japanese rice, SAKE
Bird: Asian, MINA, MYNA
Egyptian sacred, IBIS
Extinct, DODO, MAMO
Flightless, KIWI
Gull-like, TERN
Hawaiian, IIWI, MAMO
Parson, KOKO
Unfledged, EYAS
Birds: As class, AVES
Black, EBON
(French), NOIR
Blackbird: European, MERL
Boat: Flat-bottomed, DORY
Bone: Forearm, ULNA
Bones, OSSA
Box: Japanese, INRO
Bravo (rare), EUGE
Buffalo: Indian wild, ARNA
Bull (Spanish), TORO
Burden, ONUS
Cabbage: Sliced, SLAW
Caliph: Mohammedan, OMAR
Canoe: Malay, PRAU, PROA
Cap: Military, KEPI
Cape, NESS
Capital: Ancient Irish, TARA
Case: Article, ETUI
Cat: Wild, BALU, EYRA
Chalcedony, SARD
Chamber: Indian ceremonial, KIVA
Channel: Brain, ITER
Cheese: Dutch, EDAM
Chest: Sepulchral stone, CIST
Chieftain: Arab, EMIR
Church: Part of, APSE, NAVE
(Scotch), KIRK
Claim (law), LIEN
Cluster: Flower, CYME
Coin: Chinese, TAEL, YUAN
German, MARK
Indian, ANNA
Iranian, RIAL
Italian, LIRA
Moroccan, OKIA
Siamese, BAHT
South American, PESO
Spanish, DURO, PESO
Turkish, PARA
Commune: Belgian, AATH
Composition: Musical, OPUS
Compound: Chemical, DIOL
Constellation: Southern, PAVO
Council: Russian, DUMA
Counsel, REDE
Covering: Seed, ARIL
Cross: Egyptian, ANKH
Cry: Bacchanalian, EVOE
Cup (Scotch), TASS
Cupbearer, SAKI
Dagger, DIRK
Malay, KRIS
Dam: River, WEIR
Dash, ELAN
Date: Roman, IDES
Dawn: Pertaining to, EOAN
Dean: English, INGE
Decay: In fruit, BLET
Deer: Sambar, MAHA
Disease: Skin, ACNE
Disk: Solar, ATEN
Dog: Hunting, ALAN
Drink: Hindu intoxicating, SOMA
Duck, SMEE, SMEW, TEAL
Dynasty: Chinese, CHEN, CHIN, CHOU, CHOW, HSIA, MING, SUNG, TANG, TSIN
Mongol, YUAN
Eagle: Biblical, GIER
Sea, ERNE
Egyptian: Christian, COPT
Ear: Pertaining to, OTIC
Entrance: Mine, ADIT
Esau, EDOM
Escutcheon: Voided, ORLE
Eskers, OSAR
Evergreen: New Zealand, TAWA
Fairy: Persian, PERI
Family: Italian, ESTE
Far (comb. form), TELE
Farewell, VALE
Father (French), PERE
Fennel: Philippine, ANIS
Fever: Malarial, AGUE
Fiber: East Indian, JUTE
Firn, NEVE
Fish: Carplike, DACE
Hawaiian, ULUA
Herringlike, SHAD
Mackerellike, CERO
Marine, HAKE
Sea, LING, MERO, OPAH
Spiny-finned, GOBY
Food: Tropical, TARO

Foot: Metric, IAMB
Formerly, ERST
Founder: Of Carthage, DIDO
France: Southern, MIDI
Furze, ULEX
Gaelic, ERSE
Gaiter, SPAT
Game: Card, FARO, SKAT
Garlic: European wild, MOLY
Garment: Hindu, SARI
Roman, TOGA
Gazelle, CORA
Gem, JADE, ONYX, OPAL, RUBY
Genus: Amphibians (incl. frogs), RANA
Amphibians (incl. tree toads), HYLA
Antelopes, ORYX
Auks, ALCA, URIA
Bees, APIS
Birds (American ostriches), RHEA
Birds (cranes), GRUS
Birds (magpies), PICA
Birds (peacocks), PAVO
Cetaceans, INIA
Ducks (incl. mallards), ANAS
Fishes (burbots), LOTA
Fishes (incl. bowfins), AMIA
Genus: Geese (snow geese), CHEN
Gulls, XEMA
Herbs, ARUM, GEUM
Insects (water scorpions), NEPA
Lilies, ALOE
Mammals (mankind), HOMO
Orchids, DISA
Owls, ASIO, BUBO, OTUS
Palms, NIPA
Sea birds, SULA
Sheep, OVIS
Shrubs, Eurasian, ULEX
Shrubs (hollies), ILEX
Shrubs (incl. Virginia Willow), ITEA
Shrubs, tropical, EVEA
Snakes (sand snakes), ERYX
Swans, OLOR
Trees, chocolate, COLA
Trees (ebony family), MABA
Trees (incl. maples), ACER
Trees (Olives), OLEA
Trees, tropical, EVEA
Turtles, EMYS
Goat: Wild, IBEX, KRAS, TAHR, TAIR, THAR
God: Assyrian, ASUR
Babylonian, ADAD, ADDU, ENKI, ENZU, IRRA, NABU, NEBO, UTUG
Celtic, LLEU, LLEW
Hindu, AGNI, CIVA, DEVA, DEWA, KAMA, RAMA, SIVA, VAYU
Phrygian, ATYS
Semitic, BAAL
Teutonic, HLER
Goddess: Babylonian, ERUA, GULA
Hawaiian, PELE
Hindu, DEVI, KALI, SHRI, VACH
Gooseberry: Hawaiian, POHA
Gourd, PEPO
Grafted (heraldry), ENTE
Grandfather (obsolete), AIEL
Grandparents: Pertaining to, AVAL
Grass: Hawaiian, HILO
Gray (French), GRIS
Green (heraldry), VERT
Groom: Indian, SYCE
Half (prefix), DEMI, HEMI, SEMI
Hamlet, DORP
Hammer-head: Part of, PEEN
Handle, ANSA
Harp: Japanese, KOTO
Hartebeest, ASSE, TORA
Hautboy, OBOE
Hawk: Taken from nest (falconry), EYAS
Hearing (law), OYER
Heater: For liquids, ETNA
Herb: Aromatic, ANET, DILL
Fabulous, MOLY
Perennial, GEUM, SEGO
Pot, WORT
Used for blue dye, WADE, WOAD
Hill: Flat-topped, MESA
Sand, DENE, DUNE
Hoarfrost, RIME
Hog: Immature female, GILT
Holly, ILEX
House: Cow, BYRE (Spanish), CASA
Ice: Floating, FLOE
Image, ICON, IKON
Incarnation: Of Vishnu, RAMA
Indian: Algonquian, CREE, SAUK
Central American, MAYA
Iroquoian, ERIE
Mexican, CORA
Peruvian, CANA, INCA, MORO
Shoshonean, HOPI
Siouan, OTOE
Southwestern, HOPI, PIMA, YUMA, ZUNI
Insect: Immature, PUPA
Instrument: Stringed, LUTE, LYRE
Ireland, EIRE, ERIN
Jacket: English, ETON
Jail (British), GAOL
Jar, OLLA
Judge: Mohammedan, CADI
Juniper: European, CADE
Kiln, OAST, OVEN
King: British legendary, LUDD, NUDD
Kiss, BUSS
Knife: Philippine, BOLO
Koran: Section of, SURA
Laborer: Spanish American, PEON
Lake: Mountain, TARN (Scotch), LOCH
Lamp: Miner's, DAVY
Landing place: Indian, GHAT
Language: Buddhist, PALI
Japanese, AINU
Latvian, LETT
Layer: Of iris, UVEA
Leaf: Palm, OLAY, OLLA
Legislature: Ukrainian, RADA
Lemur, LORI
Leopard, PARD
Let it stand, STET
Letter: Greek, BETA, IOTA, ZETA
Hebrew, AYIN, BETH, CAPH, KOPH, RESH, SHIN, TETH, YODH
Papal, BULL
Lily, ALOE
Literature: Hindu sacred, VEDA
Lizard, GILA
Monitor, URAN
Loquat, BIWA
Magistrate: Genoese or Venetian, DOGE
Man (Latin), HOMO
Mark: Omission, DELE
Marmoset: South American, MICO
Meadow: Fertile, VEGA
Measure: Electric, VOLT, WATT
Force, DYNE
Hebrew, OMER
Printing, PICA
Spanish or Portuguese, VARA
Swiss land, IMMI
Medley, OLIO
Merganser, SMEW
Milk (French), LAIT
Molding, GULA
Curved, OGEE
Mongoose: Crab-eating, URVA

Monk: Tibetan, LAMA
Monkey: African, MONA, WAAG
Ceylonese, MAHA
Cochin-China, DOUC
South American, SAKI, TITI
Monkshood, ATIS
Month: Jewish, ADAR, ELUL, IYAR
Mother (French), MERE
Mountain: Thessaly, OSSA
Mouse: Meadow, VOLE
Mythology: Norse, EDDA
Nail (French), CLOU
Native: Philippine, MORO
Nest: Of pheasants, NIDE
Network, RETE
No (German), NEIN
Noble: Mohammedan, AMIR
Notice: Death, OBIT
Novel: By Zola, NANA
Nursemaid: Oriental, AMAH, AYAH, EYAH
Nut: Philippine, PILI
Oak: Holm, ILEX
Oil (comb. form), OLEO
Ostrich: American, RHEA
Oven, KILN, OAST
Owl: Barn, LULU
Ox: Celebes wild, ANOE
Extinct wild, URUS
Palm, ATAP, NIPA, SAGO
Parliament, DIET
Parrot: New Zealand, KAKA
Pass: Indian mountain, GHAT
Passage: Closing (music), CODA
Peach: Clingstone, PAVY
Peasant: Indian, RYOT
Old English, CARL
Pepper: Australasian, KAVA
Perfume, ATAR
Persia, IRAN
Person: Extraordinary, ONER
Pickerel or pike, ESOX
Pitcher, EWER
Plant: Aromatic, NARD
Century, ALOE
Indigo, ANIL
Pepper, KAVA
Platform: Raised, DAIS
Plum: Wild, SLOE
Pods: Vegetable, OKRA, OKRO
Poem: Epic, EPOS
Poet: Persian, OMAR
Roman, OVID
Poison, BANE
Arrow, INEE
Porkfish, SISI
Portico: Greek, STOA
Premium, AGIO
Priest: Mohammedan, IMAM
Prima donna, DIVA
Prong: Fork, TINE
Pseudonym: Lamb's, ELIA
Queen: Carthaginian, DIDO
Hindu, RANI
Rabbit, CONY
Race: Of Japan, AINU
Rail: Ducklike, COOT
North American, SORA
Redshank, CLEE
Refuse: After pressing, MARC
Regiment: Turkish, ALAI
Reliquary, ARCA
Resort: Italian, LIDO
Ridges: Sandy, ASAR, OSAR
River: German, ELBE, ODER
Italian, ADDA
Siberian, LENA
Road: Roman, ITER
Rockfish: California, RENA
Rodent: Mouselike, VOLE
South American, PACA
Rootstock, TARO
Salamander, NEWT
Salmon: Silver, COHO
Young, PARR
Same (Greek), HOMO
(Latin), IDEM
Sauce: Fish, ALEC
School: English, ETON
Seaweed, AGAR, ALGA, KELP
Secular, LAIC
Sediment, SILT
Seed: Dill, ANET
Of vetch, TARE
Serf, ILOT
Sesame, TEEL
Settlement: Eskimo, ETAH
Shark: Atlantic, GATA
European, TOPE
Sheep: Wild, UDAD
Sheltered, ALEE
Shield, EGIS
Ship: Jason's, ARGO
Left side of, PORT
Two-masted, BRIG
Shrine: Buddhist, TOPE
Shrub: New Zealand, TUTU
Sign: Magic, RUNE
Silkworm, ERIA
Skin: Beaver, PLEW
Skink: Egyptian, ADDA
Slave, ESNE
Sloth: Two-toed, UNAU
Smooth, LENE
Snow: Glacial, NEVE
Soapstone, TALC
Society: African secret, EGBO, PORO
Son: Of Seth, ENOS
Song (German), LIED
Unaccompanied, GLEE
Sound: Lung, RALE
Sour, ACID
Sow: Young, GILT
Spike: Brad-shaped, BROB
Spirit: Buddhist evil, MARA
Stake: Poker, ANTE
Star: Temporary, NOVA
Starch: East Indian, SAGO
Stone: Precious, OPAL
Strap: Bridle, REIN
Strewn (heraldry), SEME
Sweetsop, ATES, ATTA
Sword: Fencing, EPEE, FOIL
Tambourine: African, TAAR
Tapir: Brazilian, ANTA
Tax, CESS
Tea: South American, MATE
Therefore (Latin), ERGO
Thing: Extraordinary, ONER
Three (dice, cards, etc.), TREY
Thrush: Hawaiian, OMAO
Tide, NEAP
Tipster: Racing, TOUT
Tissue, TELA
Title: Etruscan, LARS
Hindu, BABU
Indian, RAJA
Mohammedan, EMIR, IMAM
Persian, BABA
Spanish, DONA
Turkish, AGHA, BABA
Toad: Largest known, AGUA
Tree, HYLA
Tool: Cutting, ADZE
Track: Deer, SLOT
Tract: Sandy, DENE
Tree: Apple, SORB
Central American, EBOE
East Indian, TEAK
Eucalyptus, YATE
Guiana and Trinidad, MORA
Javanese, UPAS
Linden, LIME, LINN, TEIL, TILL
Sandarac, ARAR
Sassafras, AGUE
Tamarisk salt, ATLE
Tribe: Moro, SULU
Trout, CHAR
Urchin: Street, ARAB
Vessel: Arab, DHOW
Vestment: Ecclesiastical, COPE
Vetch, TARE
Vine: East Indian, SOMA
Violinist: Famous, AUER
Vortex, EDDY
Wampum, PEAG
Wapiti, STAG
Waste: Allowance for, TRET
Watchman: Indian, MINA
Water (Spanish), AGUA
Waterfall, LINN
Wavy (heraldry), ONDE, UNDE
Wax, CERE
Chinese, PELA

Weed: Biblical, TARE
Weight: Ancient, MINA
  Danish (pl.), ESER
  East Asian, TAEL
  Greek, MINA
  Siamese, BAHT
Well done (rare), EUGE
Whale, CETE
  Killer, ORCA
  White, HUSE, HUSO
Whirlpool, EDDY
Wife: Of Geraint, ENID
Willow: Virginia, ITEA
Wine, PORT
Winged, ALAR
  (Heraldry), AILE
Wings, ALAE
Withered, SERE
Without (French), SANS
Wool: To comb, CARD
Work, OPUS
Wrong: Civil, TORT
Young: Bring forth, YEAN

Words of Five Letters

Abode of dead: Babylonian, ARALU
Aborigine: Borneo, DAYAK
Aftersong, EPODE
Aloe, AGAVE
Animal: Footless, APODE
Ant, EMMET
Antelope: African, ADDAX, BEISA, CAAMA, ELAND, GUIBA, ORIBI, TIANG
  Goat, GORAL, SEROW
  Indian, SASIN
  Siberian, SAIGA
Arch: Pointed, OGIVE
Armadillo, APARA, POYOU, TATOU
Arrowroot, ARARU
Artery: Trunk, AORTA
Association: Russian, ARTEL
  Secret, CABAL
Author: English, READE
Automaton, GOLEM, ROBOT
Award: Motion-picture, OSCAR
Basket: Fishing, CREEL
Beer: Russian, KVASS
Bible: Mohammedan, KORAN
Bird: Asian, MINAH, MYNAH
  Indian, SHAMA
  Larklike, PIPIT
  Loonlike, GREBE
  Oscine, VIREO
  South American, AGAMI
  Swimming, GREBE
Black: (French), NOIRE
  (Heraldry), SABLE
Blackbird: European, MERLE, OUSEL, OUZEL
Block: Glacial, SERAC
Blue (heraldry), AZURE
Boat: Eskimo, BIDAR, UMIAK
Bobwhite, COLIN, QUAIL
Bone (comb. form), OSTEO
  Leg, TIBIA
  Thigh, FEMUR
Broom: Twig, BESOM
Brother (French), FRERE
  Moses', AARON
Canoe: Eskimo, BIDAR, KAYAK
Cape: Papal, FANON, ORALE
Caravansary, SERAI
Card: Old playing, TAROT
Caterpillar: New Zealand, AWETO
Catkin, AMENT
Cavity: Stone, GEODE
Cephalopod, SQUID
Cetacean, WHALE
Chariot, ESSED
Cheek: Pertaining to, MALAR
Chieftain: Arab, EMEER
Child (Scotch), BAIRN
Cigar, CLARO
Coating: Seed, TESTA
Cockatoo: Palm, ARARA
Coin: Costa Rican, COLON
  Danish, KRONE
  Ecuadorian, SUCRE
  English, GROAT, PENCE
  French, FRANC
  German, KRONE, TALER
  Hungarian, PENGO
  Icelandic, KRONA
  Indian, RUPEE
  Iraqi, DINAR
  Norwegian, KRONE
  Polish, ZLOTY
  Russian, COPEC, KOPEK, RUBLE
  Swedish, KRONA
  Turkish, ASPER
  Yugoslav, DINAR
Collar: Papal, FANON, ORALE
  Roman, RABAT
Commune: Italian, TREIA
Composition: Choral, MOTET
Compound: Chemical, ESTER
Conceal (law), ELOIN
Council: Ecclesiastical, SYNOD
Court: Anglo-Saxon, GEMOT
  Inner, PATIO
Crest: Mountain, ARETE
Crown: Papal, TIARA
Cuttlefish, SEPIA
Date: Roman, NONES
Decree: Mohammedan, IRADE
  Russian, UKASE
Deposit: Loam, LOESS
Desert: Gobi, SHAMO
Devilfish, MANTA
Disease: Cereals, ERGOT
Disk, PATEN
Dog: Australian wild, DINGO
Dormouse, LEROT
Drum, TABOR
Duck: Sea, EIDER
Dynasty: Chinese, CHING, LIANG, SHANG
Earthquake, SEISM
Eel, ELVER, MORAY
Ermine: European, STOAT
Ether: Crystalline, APIOL
Fabric: Velvetlike, PANNE
Fabulist, AESOP
Family: Italian, CENCI
Fiber: West Indian, SISAL
Fig: Smyrna, ELEME, ELEMI
Figure: Of speech, TROPE
Finch: European, SERIN
Fish: American small, KILLY
Flower: Garden, ASTER
Friend (Spanish), AMIGO

Fruit: Tropical, MANGO
Fungus: Rye, ERGOT
Furze, GORSE
Gateway, TORAN, TORII
Gem, AGATE, BERYL, PEARL, TOPAZ
Genus: Barnacles, LEPAS
Bears, URSUS
Birds (loons), GAVIA
Birds (nuthatches), SITTA
Cats, FELIS
Dogs, CANIS
Fishes (chiros), ELOPS
Fishes (perch), PERCA
Geese, ANSER
Grasses, STIPA
Grasses (incl. oats), AVENA
Gulls, LARUS
Hares, rabbits, LEPUS
Hawks, BUTEO
Herbs, old world, INULA
Herbs, trailing or climbing, APIOS
Herbs, tropical, TACCA, URENA
Horses, EQUUS
Insects (olive flies), DACUS
Lice, plant, APHIS
Lichens, USNEA
Lizards, AGAMA
Moles, TALPA
Mollusks, OLIVA
Monkeys, CEBUS
Palms, ARECA
Pigeons, GOURA
Plants (amaryllis family), AGAVE
Ruminants (goats), CAPRA
Shrubs, Asiatic, SABIA
Shrubs (heath), ERICA
Shrubs (incl. raspberry), RUBUS
Shrubs, tropical, IXORA, TREMA, URENA
Ticks, ARGAS
Trees (of elm family), TREMA, ULMUS
Trees, tropical, IXORA, TREMA
Goat: Bezoar, PASAN
God: Assyrian, ASHIR, ASHUR, ASSUR
Babylonian, DAGAN, SIRIS
Gaelic, DAGDA
Hindu, BHAGA, INDRA, SHIVA
Japanese, EBISU
Philistine, DAGON
Phrygian, ATTIS
Teutonic, AEGIR, GYMIR
Welsh, DYLAN
Goddess: Babylonian, ISTAR, NANAI
Hindu, DURGA, GAURI, SHREE
Group: Of six, HEXAD
Grove: Sacred to Diana, NEMUS
Growing out, ENATE
Guitar: Hindu, SITAR
Hartebeest, CAAMA
Headdress: Jewish or Persian, TIARA
Liturgical, MITER, MITRE
Heath, ERICA
Herb: Grasslike marsh, SEDGE
Heron, EGRET
Hog: Young, SHOAT, SHOTE
Image, EIKON
Indian: Cariban, ARARA
Iroquoian, HURON
Mexican, AZTEC, OPATA, OTOMI
Muskhogean, CREEK
Siouan, OSAGE, TETON
Spanish American, ARARA, CARIB
Inflorescence: Racemose, AMENT
Insect: Immature, LARVA
Intrigue, CABAL
Iris: Yellow, SEDGE
Juniper, GORSE
Old Testament, RETEM
Kidneys: Pertaining to, RENAL
King: British legendary, LLUDD
Kite: European, GLEDE
Kobold, NISSE
Land: Cultivated, ARADA
Landholder (Scotch), LAIRD, THANE
Language: Dravidian, TAMIL
Lariat, LASSO, REATA
Laughing, RIANT
Lawgiver: Athenian, DRACO, SOLON
Leaf: Calyx, SEPAL
Fern, FROND
Lemur, LORIS
Letter: English, AITCH
Greek, ALPHA, DELTA, GAMMA, KAPPA, OMEGA, SIGMA, THETA
Hebrew, ALEPH, CHETH, GIMEL, SADHE, ZAYIN
Lichen, USNEA
Lighthouse, PHARE
Lizard: Old World, AGAMA
Louse: Plant, APHID
Macaw: Brazilian, ARARA
Mahogany: Philippine, ALMON
Mammal: Badgerlike, RATEL
Civetlike, GENET
Giraffelike, OKAPI
Raccoonlike, COATI
Man (French), HOMME
Marble, AGATE
Mark: Insertion, CARET
Market place: Greek, AGORA
Marsupial: Australian, KOALA
Measure: Electric, FARAD, HENRY
Energy, JOULE
Metric, LITER, STERE
Printing, AGATE
Russian, VERST
Mixture: Smelting, MATTE
Mohicans: Last of, UNCAS
Molding: Convex, OVOLO, TORUS
Mole, TALPA
Monkey: African, PATAS
Capuchin, SAJOU
Howling, ARABA
Monkshood, ATEES
Month: Jewish, NISAN, SIVAN, TEBET
Museum (French), MUSEE
Musketeer, ATHOS
Native: Aleutian, ALEUT
New Zealand, MAORI
Neckpiece: Ecclesiastical, AMICE
Nerve (comb. form), NEURO
Nest: Eagle's or hawk's, AERIE
Insect's, NIDUS
Net: Fishing, SEINE
Newsstand, KIOSK

Nitrogen, AZOTE
Noble: Mohammedan, AMEER
Nodule: Stone, GEODE
Nostrils, NARES
Notched irregularly, EROSE
Nymph: Mohammedan, HOURI
Official: Roman, EDILE
Oleoresin, ELEMI
Opening: Mouthlike, STOMA
Oration: Funeral, ELOGE
Ostiole, STOMA
Page: Left-hand, VERSO
  Right-hand, RECTO
Palm, ARECA, BETEL
Park: Colorado, ESTES
Perfume, ATTAR
Philosopher: Greek, PLATO
Pillar: Stone, STELA, STELE
Pinnacle: Glacial, SERAC
Plain, LLANO
Plant: Century, AGAVE
  Climbing, LIANA
  Dwarf, CUMIN
  East Asian perennial, RAMIE
  Medicinal, SENNA
  Mustard family, CRESS
Plate: Communion, PATEN
Poem: Lyric, EPODE
Point: Lowest, NADIR
Poplar, ABELE, ALAMO, ASPEN
Porridge: Spanish American, ATOLE
Post: Stair, NEWEL
Priest: Mohammedan, IMAUM
Protozoan, AMEBA
Queen: (French), REINE
  Hindu, RANEE
Rabbit, CONEY
Rail, CRAKE
Red (heraldry), GULES
Religion: Moslem, ISLAM
Resin, ELEMI
Revoke (law), ADEEM
Rich man, MIDAS, NABOB
Ridge: Sandy, ESKAR, ESKER
River: French, LOIRE, SEINE
Rockfish: California, REINA
Rootstock: Fragrant, ORRIS
Ruff: Female, REEVE
Sack: Pack, KYACK
Salt: Ethereal, ESTER
Saltpeter, NITER, NITRE
Salutation: Eastern, SALAM
Sandpiper: Old World, TEREK
Scented, OLENT
School: Fish, SHOAL
  French public, LYCEE
Scriptures: Mohammedan, KORAN
Seaweeds, ALGAE
Seed: Aromatic, ANISE
Seraglio, HAREM, SERAI
Serf, HELOT
Sheep: Wild, AUDAD
Sheeplike, OVINE
Shield, AEGIS
Shoe: Wooden, SABOT
Shoots: Pickled bamboo, ACHAR
Shot: Billiard, CAROM, MASSE
Shrine: Buddhist, STUPA
Shrub: Burning bush, WAHOO
  Ornamental evergreen, TOYON
  Used in tanning, SUMAC
Silk: Watered, MOIRE
Sister (French), SOEUR
  (Latin), SOROR
Six: Group of, HEXAD
Skeleton: Marine, CORAL
Slave, HELOT
Snake, ABOMA, ADDER, COBRA, RACER
Soldier: French, POILU
  Indian, SEPOY
Sour, ACERB
Spirit: Air, ARIEL
Staff: Shepherd's, CROOK
Starwort, ASTER
Steel (German), STAHL
Stockade: Russian, ETAPE
Stop (nautical), AVAST
Storehouse, ETAPE
Subway: Parisian, METRO
Tapestry, ARRAS
Tea: Paraguayan, YERBA
Temple: Hawaiian, HEIAU
Terminal: Positive, ANODE
Theater: Greek, ODEON, ODEUM
Then (French), ALORS
Thread: Surgical, SETON
Thrush: Wilson's, VEERY
Title: Hindu, BABOO
  Indian, RAJAH, SAHEB, SAHIB
  Mohammedan, EMEER, IMAUM
Tree: Buddhist sacred, PIPAL
  East Indian cotton, SIMAL
  Hickory, PECAN
  Light-wooded, BALSA
  Malayan, TERAP
  Mediterranean, CAROB
  Mexican, ABETO
  Mexican pine, OCOTE
  New Zealand, MAIRE
  Philippine, ALMON
  Rain, SAMAN
  South American, UMBRA
  Tamarack, LARCH
  Tamarisk salt, ATLEE
  West Indian, ACANA
Trout, CHARR
Troy, ILION, ILIUM
Twin: Siamese, CHANG
Vestment: Ecclesiastical, STOLE
Violin: Famous, AMATI, STRAD
Volcano: Mud, SALSE
Wampum, PEAGE
War cry: Greek, ALALA
Wavy (heraldry), UNDEE
Weight: Jewish, GERAH
Wen, TALPA
Wheat, SPELT
Wheel: Persian water, NORIA
Whitefish, CISCO
Willow, OSIER
Window: Bay, ORIEL
Wine, MEDOC, RHINE, TINTA, TOKAY
Winged, ALATE
Woman (French), FEMME
Year: Excess of solar over lunar, EPACT
Zoroastrian, PARSI

Words of Six or More Letters

Agave, MAGUEY
Alkaloid: Crystalline, ESERIN, ESERINE
Alligator, CAYMAN
Amphibole, EDENITE, URALITE
Ant: White, TERMITE
Antelope: African, DIKDIK, DUIKER, GEMSBOK, IMPALA, KOODOO
European, CHAMOIS
Indian, NILGAI, NILGAU, NILGHAI, NILGHAU
Ape: Asian or East Indian, GIBBON
Appendage: Leaf, STIPEL, STIPULE
Armadillo, PELUDO, TATOUAY
Arrowroot, ARARAO
Ascetic: Jewish, ESSENE
Ass: Asian wild, ONAGER
Avatar: Of Vishnu, KRISHNA
Babylonian, ELAMITE
Badge: Shoulder, EPAULET
Baldness, ALOPECIA
Barracuda, SENNET
Bark: Aromatic, SINTOC
Bearlike, URSINE
Beetle, ELATER
Bible: Zoroastrian, AVESTA
Bird: Sea, PETREL
South American, SERIEMA
Wading, AVOCET, AVOSET
Bone: Leg, FIBULA
Branched, RAMATE
Brother (Latin), FRATER
Bunting: European, ORTOLAN
Call: Trumpet, SENNET
Canoe: Eskimo, BAIDAR, OOMIAK
Caravansary, IMARET
Cat: Asian or African, CHEETAH
Leopardlike, OCELOT
Cenobite: Jewish, ESSENE
Centerpiece: Table, EPERGNE
Cetacean, DOLPHIN, PORPOISE
Chariot, ESSEDA, ESSEDE
Chief: Seminole, OSCEOLA
Claim: Release as (law), REMISE
Clock: Water, CLEPSYDRA
Cloud, CUMULUS, NIMBUS
Coach: French hackney, FIACRE
Coin: Czech, KORUNA
Ethiopian, TALARI
Finnish, MARKKA
German, THALER
Greek, DRACHMA
Haitian, GOURDE
Honduran, LEMPIRA
Hungarian, FORINT
Indo-Chinese, PIASTER
Netherlands, GUILDER
Panamanian, BALBOA
Paraguayan, GUARANI
Portuguese, ESCUDO
Russian, COPECK, KOPECK, ROUBLE
Spanish, PESETA
Venezuelan, BOLIVAR
Communion: Last holy, VIATICUM
Conceal (law), ELOIGN
Confection, PRALINE
Construction: Sentence, SYNTAX
Convexity: Shaft of column, ENTASIS
Court: Anglo-Saxon, GEMOTE
Cow: Sea, DUGONG, MANATEE
Cylindrical, TERETE
Dagger, STILETTO
Malay, CREESE, KREESE
Date: Roman, CALENDS, KALENDS
Deer, CARIBOU, WAPITI
Disease: Plant, ERINOSE
Doorkeeper, OSTIARY
Dragonflies: Order of, ODANATA
Drink: Of gods, NECTAR
Drum: TABOUR
Moorish, ATABAL, ATTABAL
Duck: Fish-eating, MERGANSER
Sea, SCOTER
Dynasty: Chinese, MANCHU
Eel, CONGER
Edit, REDACT
Envelope: Flower, PERIANTH
Eskimo, AMERIND
Ether: Crystalline, APIOLE
Excuse (law), ESSOIN
Eyespots, OCELLI
Fabric, ESTAMENE, ESTAMIN, ETAMINE
Falcon: European, KESTREL
Figure: Used as column, CARYATID, TELAMON
Fine: For punishment, AMERCE
Fish: Asian fresh-water, GOURAMI
Pikelike, BARRACUDA
Five: Group of, PENTAD
Fly: African, TSETSE
Foot: Metric, ANAPEST, IAMBUS
Foxlike, VULPINE
Frying pan, SPIDER
Fur, KARAKUL
Galley: Greek or Roman, BIREME, TRIREME
Game: Card, ECARTE
Garment: Greek, CHLAMYS
Gateway, GOPURA, TORANA
Genus: Birds (ravens, crows), CORVUS
Eels, CONGER
Fishes, ANABAS
Foxes, VULPES
Herbs, ANEMONE
Insects, CICADA
Lemurs, GALAGO
Mints (incl. catnip), NEPETA
Mollusks, ANOMIA, ASTARTE, TEREDO
Mollusks (incl. oysters), OSTREA
Monkeys (spider monkeys), ATELES
Thrushes (incl. robins), TURDUS
Trees (of elm family), CELTIS
Trees (incl. dogwood), CORNUS
Trees, tropical American, SAPOTA
Wrens, NANNUS
Gibbon, SIAMANG, WOUWOU
Gland: Salivary, RACEMOSE
Goat: Bezoar, PASANG
Goatlike, CAPRINE
God: Assyrian, ASHSHUR, ASSHUR
Babylonian, BABBAR, MARDUK, MERODACH, NANNAR, NERGAL, SHAMASH
Hindu, BRAHMA, KRISHNA, VISHNU
Tahitian, TAAROA
Goddess: Babylonian, ISHTAR

Hindu, CHANDI, HAIMAVATI, LAKSHMI, PARVATI, SARASVATI, SARASWATI
Government, POLITY
Governor: Persian, SATRAP
Grandson (Scotch), NEPOTE
Group: Of five, PENTAD
Of nine, ENNEAD
Of seven, HEPTAD
Hare: In first year, LEVERET
Harpsichord, SPINET
Herb: Alpine, EDELWEISS
Chinese, GINSENG
South African, FREESIA
Hermit, EREMITE
Hero: Legendary, PALADIN
Heron, BITTERN
Horselike, EQUINE
Hound: Short-legged, BEAGLE
House (French), MAISON
Idiot, CRETIN
Implement: Stone, NEOLITH
Incarnation: Hindu, AVATAR
Indian: Iroquoian, SENECA
Southwestern, APACHE
Inn: Turkish, IMARET
Insects: Order of, DIPTERA
Instrument: Japanese banjolike, SAMISEN
Musical, CLAVIER, SPINET
Interstice, AREOLA
Ironwood, COLIMA
Juniper: Old Testament, RAETAM
Kettledrum, ATABAL
King: Fairy, OBERON
Kneecap, PATELLA
Knife, MACHETE
Langur: Sumatran, SIMPAI
Legislature: Spanish, CORTES
Lemur: African, GALAGO
Madagascar, AYEAYE
Letter: Greek, EPSILON, LAMBDA, OMICRON, UPSILON
Hebrew: DALETH, LAMEDH, SAMEKH
Lighthouse, PHAROS
Lizard, IGUANA
Llama, ALPACA
Lockjaw, TETANUS
Locust, CICADA, CICALA
Macaw: Brazilian, MARACAN
Maid: Of Astolat, ELAINE
Mammal: Madagascar, TENDRAC, TENREC
Man (Spanish), HOMBRE
Marmoset: South American, TAMARIN
Marsupial, BANDICOOT, WOMBAT
Massacre, POGROM
Mayor: Spanish, ALCALDE
Measure: Electric, AMPERE, COULOMB, KILOWATT
Medicine: Quack, NOSTRUM
Member: Religious order, CENOBITE
Molasses, TREACLE
Monkey: African, GRIVET, NISNAS
Asian, LANGUR
Philippine, MACHIN
South American, PINCHE, SAIMIRI, SAMIRI, SAPAJOU
Monster, CHIMERA, GORGON
(Comb. form), TERATO
Cretan, MINOTAUR
Month: Jewish, HESHVAN, KISLEV, SHEBAT, TAMMUZ, TISHRI, VEADAR
Mountain: Asia Minor, ARARAT
Mulct, AMERCE
Musketeer, ARAMIS, PORTHOS
Nearsighted, MYOPIC
Net, TRAMMEL
New York City, GOTHAM
Nine: Group of, ENNEAD
Nobleman: Spanish, GRANDEE
Official: Roman, AEDILE
Onyx: Mexican, TECALI
Order: Dragonflies, ODANATA
Insects, DIPTERA
Organ: Plant, PISTIL
Ornament: Shoulder, EPAULET
Overcoat: Military, CAPOTE
Ox: Wild, BANTENG
Oxidation: Bronze or copper, PATINA
Paralysis: Incomplete, PARESIS
Pear: Alligator, AVOCADO
Persimmon: Mexican, CHAPOTE
Pipe: Peace, CALUMET
Plaid (Scotch), TARTAN
Plain, PAMPAS, STEPPE, TUNDRA
Plant: Buttercup family, ANEMONE
Century, MAGUEY
On rocks, LICHEN
Plowing: Fit for, ARABLE
Poem: Heroic, EPOPEE
Six-lined, SESTET
Point: Highest, ZENITH
Potion: Love, PHILTER, PHILTRE
Protozoan, AMOEBA
Punish, AMERCE
Purple (heraldry), PURPURE
Queen: Fairy, TITANIA
Race: Skiing, SLALOM
Rat: Indian or Ceylonese, BANDICOOT
Retort, RIPOST, RIPOSTE
Ring: Harness, TERRET
Little, ANNULET
Rodent: Jumping, JERBOA
Spanish American, AGOUTI, AGOUTY
Sailor: East Indian, LASCAR
Salmon: Young, GRILSE
Salutation: Eastern, SALAAM
Sandpiper, PLOVER
Sandy, ARENOSE
Sapodilla, SAPOTA, SAPOTE
Saw: Surgical, TREPAN
Seven: Group of, HEPTAD
Sexes: Common to both, EPICENE
Shawl: Mexican, SERAPE
Sheathing: Flower, SPATHE
Sheep: Wild, AOUDAD, ARGALI
Shipworm, TEREDO
Shoes: Mercury's winged, TALARIA
Shortening: Syllable, SYSTOLE
Shrub, SPIRAEA
Sickle-shaped, FALCATE
Silver (heraldry), ARGENT
Snake, ANACONDA
Speech: Loss of, APHASIA
Spiral, HELICAL
Staff: Bishop's, CROSIER, CROZIER

Stalk: Plant, PETIOLE
State: Swiss, CANTON
Studio, ATELIER
Swan: Young, CYGNET
Swimming, NATANT
Sword-shaped, ENSATE
Terminal: Negative, CATHODE
Third (music), TIERCE
Thrust: Fencing, RIPOST, RIPOSTE
Tile: Pertaining to, TEGULAR
Tomb: Empty, CENOTAPH
Tooth (comb. form), ODONTO
Tower: Mohammedan, MINARET
Tree: African timber, BAOBAB
Black gum, TUPELO
East Indian, MARGOSA
Locust, ACACIA
Malayan, SINTOC
Marmalade, SAPOTE
Urn: Tea, SAMOVAR
Vehicle, LANDAU, TROIKA
Verbose, PROLIX
Viceroy: Egyptian, KHEDIVE
Vulture: American, CONDOR
Warehouse (French), ENTREPOT
Whale: White, BELUGA
Whirlpool, VORTEX
Will: Addition to, CODICIL
Having left, TESTATE
Wind, CHINOOK, MONSOON, SIMOOM, SIMOON, SIROCCO
Window: In roof, DORMER
Wine, BARBERA, BURGUNDY, CABERNET, CHABLIS, CHIANTI, CLARET, MUSCATEL, RIESLING, SAUTERNE, SHERRY, ZINFANDEL
Wolfish, LUPINE
Woman: Boisterous, TERMAGANT
Woolly, LANATE
Workshop, ATELIER
Zoroastrian, PARSEE

Old-Testament Names

(We do not pretend that this list is all-inclusive. We include only those names which in our opinion one meets most often in crossword puzzles.)

AARON: First high priest of Jews; son of Amram; brother of Miriam and Moses; father of Abihu, Eleazer, Ithamar, and Nadab.

ABEL: Son of Adam; slain by Cain.

ABIGAIL: Wife of Nabal; later, wife of David.

ABIHU: Son of Aaron.

ABIMELECH: King of Gerar.

ABNER: Commander of army of Saul and Ishbosheth; slain by Joab.

ABRAHAM (or ABRAM): Patriarch; forefather of the Jews; son of Terah; husband of Sarah; father of Isaac and Ishmael.

ABSALOM: Son of David and Maacah; revolted against David; slain by Joab.

ACHISH: King of Gath; gave refuge to David.

ACHSA (or ACHSAH): Daughter of Caleb; wife of Othniel.

ADAH: Wife of Lamech.

ADAM: First man; husband of Eve; father of Cain, Abel, and Seth.

ADONIJAH: Son of David and Haggith.

AGAG: King of Amalek; spared by Saul; slain by Samuel.

AHASUERUS: King of Persia; husband of Vashti and, later, Esther; sometimes identified with Xerxes the Great.

AHIJAH: Prophet; foretold accession of Jeroboam.

AHINOAM: Wife of David.

AMASA: Commander of army of David; slain by Joab.

AMNON: Son of David and Ahinoam; ravished Tamar; slain by Absalom.

AMRAM: Husband of Jochebed; father of Aaron, Miriam and Moses.

ASENATH: Wife of Joseph.

ASHER: Son of Jacob and Zilpah.

BALAAM: Prophet; rebuked by his donkey for cursing God.

BARAK: Jewish captain; associated with Deborah.

BARUCH: Secretary to Jeremiah.

BATHSHEBA: Wife of Uriah; later, wife of David.

BELSHAZZAR: Crown prince of Babylon.

BENAIAH: Warrior of David; proclaimed Solomon King.

BEN-HADAD: Name of several kings of Damascus.

BENJAMIN: Son of Jacob and Rachel.

BEZALEEL: Chief architect of tabernacle.

BILDAD: Comforter of Job.

BILBAH: Servant of Rachel; mistress of Jacob.

BOAZ: Husband of Ruth; father of Obed.

CAIN: Son of Adam and Eve; slayer of Abel; father of Enoch.

CAINAN: Son of Enos.

CALEB: Spy sent out by Moses to visit Canaan; father of Achsa.

CANAAN: Son of Ham.

CHILION: Son of Elimelech; husband of Orpah.

CUSH: Son of Ham; father of Nimrod.

DAN: Son of Jacob and Bilhah.

DANIEL: Prophet; saved from lions by God.

DEBORAH: Hebrew prophetess; helped Israelites conquer Canaanites.

DELILAH: Mistress and betrayer of Samson.

ELAM: Son of Shem.

ELEAZAR: Son of Aaron; succeeded him as high priest.

ELI: High priest and judge; teacher of Samuel; father of Hophni and Phinehas.

ELIAKIM: Chief minister of Hezekiah.

ELIEZER: Servant of Abraham.

ELIHU: Comforter of Job.

ELIJAH (or ELIAS): Prophet; went to heaven in chariot of fire.

ELIMELECH: Husband of Naomi; father of Chilion and Mahlon.

ELIPHAZ: Comforter of Job.

ELISHA (or ELISEUS): Prophet; successor of Elijah.

ELKANAH: Husband of Hannah; father of Samuel.

ENOCH: Son of Cain.

ENOCH: Father of Methuselah.

ENOS: Son of Seth; father of Cainan.

EPHRAIM: Son of Joseph.

ESAU: Son of Isaac and Rebecca; sold his birthright to his brother Jacob.

ESTHER: Jewish wife of Ahasuerus; saved Jews from Haman's plotting.

EVE: First woman; created from rib of Adam.

EZRA (or ESDRAS): Hebrew scribe and priest.

GAD: Son of Jacob and Zilpah.

GEHAZI: Servant of Elisha.

GIDEON: Israelite hero; defeated Midianites.

GOLIATH: Philistine giant; slain by David.

HAGAR: Handmaid of Sarah; concubine of Abraham; mother of Ishmael.

HAGGITH: Mother of Adonijah.

HAM: Son of Noah; father of Cush, Mizraim, Phut, and Canaan.

HAMAN: Chief minister of Ahasuerus; hanged on gallows prepared for Mordecai.

HANNAH: Wife of Elkanah; mother of Samuel.

HANUN: King of Ammonites.

HARAN: Brother of Abraham; father of Lot.

HAZAEL: King of Damascus.

HEPHZI-BAH: Wife of Hezekiah; mother of Mannaseh.

HIRAM: King of Tyre.

HOLOFERNES: General of Nebuchadnezzar; slain by Judith.

HOPHNI: Son of Eli.

ISAAC: Hebrew patriarch; son of Abraham and Sarah; half brother of Ishmael; husband of Rebecca; father of Esau and Jacob.

ISHMAEL: Son of Abraham and Hagar; half brother of Isaac.

ISSACHAR: Son of Jacob and Leah.

ITHAMAR: Son of Aaron.

JABAL: Son of Lamech and Adah.

JABIN: King of Hazor.

JACOB: Hebrew patriarch, founder of Israel; son of Isaac and Rebecca; husband of Leah and Rachel; father of Asher, Benjamin, Dan, Gad, Issachar, Joseph, Judah, Levi, Naphtali, Reuben, Simeon, and Zebulun.

JAEL: Slayer of Sisera.

JAPHETH: Son of Noah.

JEHOIADA: High priest; husband of Jehoshabeath; revolted against Athaliah and made Joash King of Judah.

JEHOSHABEATH (or JEHOSHEBA): Daughter of Jehoram of Judah; wife of Jehoiada.

JEPHTHAH: Judge in Israel; sacrificed his only daughter because of vow.

JESSE: Son of Obed; father of David.

JETHRO: Midianite priest; father of Zipporah.

JEZEBEL: Phoenician princess; wife of Ahab; mother of Ahaziah, Athaliah, and Jehoram.

JOAB: Commander in chief under David; slayer of Abner, Absalom, and Amasa.

JOB: Patriarch; underwent many afflictions; comforted by Bildad, Elihu, Eliphaz and Zophar.

JOCHEBED: Wife of Amram.

JONAH: Prophet; cast into sea and swallowed by great fish.

JONATHAN: Son of Saul; friend of David.

JOSEPH: Son of Jacob and Rachel; sold into slavery by his brothers; husband of Asenath; father of Ephraim and Manassah.

JOSHUA: Successor of Moses; son of Nun.

JUBAL: Son of Lamech and Adah.

JUDAH: Son of Jacob and Leah.

JUDITH: Slayer of Holofernes.

KISH: Father of Saul.

LABAN: Father of Leah and Rachel.

LAMECH: Son of Methuselah; father of Noah.

LAMECH: Husband of Adah and Zillah; father of Jabal, Jubal, and Tubal-Cain.

LEAH: Daughter of Laban; wife of Jacob.

LEVI: Son of Jacob and Leah.

LOT: Son of Haran; escaped destruction of Sodom.

MAACAH: Mother of Absalom and Tamar.

MAHLON: Son of Elimelech; first husband of Ruth.

MANASSEH: Son of Joseph.

MELCHIZEDEK: King of Salem.

METHUSELAH: Patriarch; son of Enoch; father of Lamech.

MICHAL: Daughter of Saul; wife of David.

MIRIAM: Prophetess; daughter of Amram; sister of Aaron and Moses.

MIZRAIM: Son of Ham.

MORDECAI: Uncle of Esther; with her aid, saved Jews from Haman's plotting.

MOSES: Prophet and lawgiver; son of Amram; brother of Aaron and Miriam; husband of Zipporah.

NAAMAN: Syrian captain; cured of leprosy by Elisha.

NABAL: Husband of Abigail.

NABOTH: Owner of vineyard; stoned to death because he would not sell it to Ahab.

NADAB: Son of Aaron.

NAHOR: Father of Terah.

NAOMI: Wife of Elimelech; mother-in-law of Ruth.
NAPHTALI: Son of Jacob and Bilhah.
NATHAN: Prophet; reproved David for causing Uriah's death.
NEBUCHADNEZZAR (or NEBUCHADREZZAR): King of Babylon; destroyer of Jerusalem.
NEHEMIAH: Jewish leader; empowered by Artaxerxes to rebuild Jerusalem.
NIMROD: Mighty hunter; son of Cush.
NOAH: Patriarch; Son of Lamech; escaped Deluge by building Ark; father of Ham, Japheth and Shem.
NUN (or NON): Father of Joshua.
OBED: Son of Boaz; father of Jesse.
OG: King of Bashan.
ORPAH: Wife of Chilion.
OTHNIEL: Kenezite; judge of Israel; husband of Achsa.
PHINEHAS: Son of Eleazer.
PHINEHAS: Son of Eli.
PHUT (or PUT): Son of Ham.
POTIPHAR: Egyptian official; bought Joseph.
RACHEL: Wife of Jacob.
REBECCA (or REBEKAH): Wife of Isaac.
REUBEN: Son of Jacob and Leah.
RUTH: Wife of Mahlon, later of Boaz; daughter-in-law of Naomi.
SAMSON: Judge of Israel; famed for strength; betrayed by Delilah.
SAMUEL: Hebrew judge and prophet; son of Elkanah.
SARAH (or SARA, SARAI): Wife of Abraham.
SENNACHERIB: King of Assyria.
SETH: Son of Adam; father of Enos.
SHEM: Son of Noah; father of Elam.
SIMEON: Son of Jacob and Leah.
SISERA: Canaanite captain; slain by Jael.
TAMAR: Daughter of David and Maachah; ravished by Amnon.
TERAH: Son of Nahor; father of Abraham.
TUBAL-CAIN: Son of Lamech and Zillah.
URIAH: Husband of Bathsheba; sent to death in battle by David.
VASHTI: Wife of Ahasuerus; set aside by him.
ZADOK: High priest during David's reign.
ZEBULUN (or ZABULON): Son of Jacob and Leah.
ZILLAH: Wife of Lamech.
ZILPAH: Servant of Leah; mistress of Jacob.
ZIPPORAH: Daughter of Jethro; wife of Moses.
ZOPHAR: Comforter of Job.

Kings of Judah and Israel

Kings Before Division of Kingdom

SAUL: First King of Israel; son of Kish; father of Ish-Bosheth, Jonathan and Michal.
ISH-BOSHETH (or ESHBAAL): King of Israel; son of Saul.
DAVID: King of Judah; later of Israel; son of Jesse; husband of Abigail, Ahinoam, Bathsheba, Michal, etc.; father of Absalom, Adonijah, Amnon, Solomon, Tamar, etc.
SOLOMON: King of Israel and Judah; son of David; father of Rehoboam.
REHOBOAM: Son of Solomon; during his reign the kingdom was divided into Judah and Israel.

Kings of Judah (Southern Kingdom)

REHOBOAM: First King.
ABIJAH (or ABIJAM or ABIA): Son of Rehoboam.
ASA: Probably son of Abijah.
JEHOSHAPHAT: Son of Asa.
JEHORAM (or JORAM): Son of Jehoshaphat; husband of Athaliah.
AHAZIAH: Son of Jehoram and Athaliah.
ATHALIAH: Daughter of King Ahab of Israel and Jezebel; wife of Jehoram.
JOASH (or JEHOASH): Son of Ahaziah.
AMAZIAH: Son of Joash.
UZZIAH (or AZARIAH): Son of Amaziah.
JOTHAM: Regent, later King; son of Uzziah.
AHAZ: Son of Jotham.
HEZEKIAH: Son of Ahaz; husband of Hephzi-Bah.
MANASSEH: Son of Hezekiah and Hephzi-Bah.
AMON: Son of Manasseh.
JOSIAH (or JOSIAS): Son of Amon.
JEHOAHAZ (or JOAHAZ): Son of Josiah.
JEHOIAKIM: Son of Josiah.
JEHOIACHIN: Son of Jehoiakim.
ZEDEKIAH: Son of Josiah; kingdom overthrown by Babylonians under Nebuchadnezzar.

Kings of Israel (Northern Kingdom)

JEROBOAM I: Led secession of Israel.
NADAB: Son of Jeroboam I.
BAASHA: Overthrew Nadab.
ELAH: Son of Baasha.
ZIMRI: Overthrew Elah.
OMRI: Overthrew Zimri.
AHAB: Son of Omri; husband of Jezebel.
AHAZIAH: Son of Ahab.
JEHORAM (or JORAM): Son of Ahab.
JEHU: Overthrew Jehoram.
JEHOAHAZ (or JOAHAZ): Son of Jehu.
JEHOASH (or JOASH): Son of Jehoahaz.

JEROBOAM II: Son of Jehoash.
ZECHARIAH: Son of Jeroboam II.
SHALLUM: Overthrew Zechariah.
MENAHEM: Overthrew Shallum.
PEKAHIAH: Son of Menahem.
PEKAH: Overthrew Pekahiah.
HOSHEA: Overthrew Pekah; kingdom overthrown by Assyrians under Sargon II.

Prophets

Major

ISAIAH	JEREMIAH	EZEKIEL	DANIEL

Minor

HOSEA	OBADIAH	NAHUM	HAGGAI
JOEL	JONAH	HABAKKUK	ZECHARIAH
AMOS	MICAH	ZEPHANIAH	MALACHI

Foreign Phrases

(NOTE: The English meanings given are not necessarily literal translations.)

AB OVO: From the beginning.
ABSIT OMEN: Hope this is no bad luck.
AEQUO ANIMO: Undisturbed in mind.
AD VALOREM: According to its value.
ALEA JACTA EST: The die is cast.
ALMA MATER: One's college or school.
ALTER EGO: Other self.
AMICUS CURIAE: Friend of the court.
ANNO DOMINI: Year of our Lord.
BEL CANTO: A style of singing marked by virtuosity and beauty.
BETE NOIRE: Particular nemesis.
BONA FIDE: In good faith; genuine.
CARPE DIEM: Enjoy today.
CASUS BELLI: Cause of war.
CAVEAT EMPTOR: Buy at your own risk.
CORPUS DELICTI: Fundamental fact or facts necessary to commission of a crime.
CUI BONO: To whose advantage?
CUM GRANO SALIS: With a grain of salt.
DE FACTO: As a matter of fact; because of this fact.
DEO GRATIAS: Thanks be to God.
DEUS EX MACHINA: Artificially produced to bring a solution of some extreme difficulty.
ECCE HOMO: This is the man.
ERRARE HUMANUM (EST): To err is human.
FESTINA LENTE: Make haste slowly.
FIAT LUX: Let there be light.
FIDUS ACHATES: Faithful friend.
FLAGRANTE DELICTO: Caught in the act.
HABEAS CORPUS: Common-law writ to bring a person before a court or judge.
HIC JACET: Here lies. . . .
HOI POLLOI: The common people.
HONORIS CAUSA: For the sake of honor.
HORS D'OEUVRES: Side dishes.
IN VINO VERITAS: In wine there is truth.
IPSE DIXIT: An assertion made but not proved.
IPSO FACTO: By the very fact.
JE NESSE DOREE: Gilded youth.
LABOR OMNIA VINCIT: Work overcomes all things.
LAISSEZ FAIRE: Noninterference.
MIRABILE DICTU: Wonderful to relate.
MULTUM IN PARVO: Much in little.
NIL ADMIRARI: To be astonished at nothing.
NOLENS, VOLENS: Willy-nilly.
O TEMPORA! O MORES!: What sad times and customs!
PERSONA GRATA: A favored person.
POST MORTEM: After death.
PRO BONO PUBLICO: For the public welfare.
PRO TEMPORE: For the time being.
RARA AVIS: Extraordinary person or thing.
REQUIESCAT IN PACE: Rest in peace.
SAVOIR FAIRE: Know-how; manners for all occasions.
SINE DIE: With no day set for the next meeting.
SINE QUA NON: Indispensable.
SPIRITUS FRUMENTI: Alcohol.
STATUS (IN) QUO: State in which anything is.
SUI GENERIS: In a class by itself.
SURSUM CORDA: Lift up your hearts.
TEMPUS FUGIT: Time flies.
ULTIMA THULE: The limit in an ideal way.
VAE VICTIS: Woe to the conquered.
VENI, VIDI, VICI: I came, I saw, I conquered.

Greek and Roman Mythology

(Most of the Greek deities were adopted by the Romans, although in many cases there was a change of name. In the list below, information is given under the Greek name; the name in parentheses is the Latin equivalent. However, all Latin names are listed with cross references to the Greek ones. In addition, there are several deities which were exclusively Roman.)

ACHERON: *See* Rivers.

ACHILLES: Greek warrior; slew Hector at Troy; slain by Paris, who wounded him in his vulnerable heel.

ACTAEON: Hunter; surprised Artemis bathing; changed by her to stag and killed by his dogs.

ADMETUS: King of Thessaly; his wife, Alcestis, offered to die in his place.

ADONIS: Beautiful youth loved by Aphrodite.

AEACUS: One of three judges of dead in Hades; son of Zeus.

AEËTES: King of Colchis; father of Medea; keeper of Golden Fleece.

AEGEUS: Father of Theseus; believing Theseus killed in Crete, he drowned himself, Aegean Sea named for him.

AEGISTHUS: Son of Thyestes; slew Atreus; with Clytemnestra, his paramour, slew Agamemnon; slain by Orestes.

AEGYPTUS: Brother of Danaüs; his sons, except Lynceus, slain by Danaïdes.

AENEAS: Trojan; son of Anchises and Aphrodite; after fall of Troy, led his followers eventually to Italy; loved and deserted Dido.

AEOLUS: *See* Winds.

AESCULAPIUS: *See* Asclepius.

AESON: King of Ioclus; father of Jason; overthrown by his brother Pelias; restored to youth by Medea.

AETHER: Personification of sky.

AETHRA: Mother of Theseus.

AGAMEMNON: King of Mycenae; son of Atreus; brother of Menelaus; leader of Greeks against Troy; slain on his return home by Clytemnestra and Aegisthus.

AGLAIA: *See* Graces.

AJAX: Greek warrior; killed himself at Troy because Achilles' armor was awarded to Odysseus.

ALCESTIS: Wife of Admetus; offered to die in his place but saved from death by Hercules.

ALCMENE: Wife of Amphitryon; mother by Zeus of Hercules.

ALCYONE: *See* Pleiades.

ALECTO: *See* Furies.

ALECTRYON: Youth changed by Ares into cock.

ALTHAEA: Wife of Oeneus; mother of Meleager.

AMAZONS: Female warriors in Asia Minor; supported Troy against Greeks.

AMOR: *See* Eros.

AMPHION: Musician; husband of Niobe; charmed stones to build fortifications for Thebes.

AMPHITRITE: Sea goddess; wife of Poseidon.

AMPHITRYON: Husband of Alcmene.

ANCHISES: Father of Aeneas.

ANCILE: Sacred shield that fell from heavens; palladium of Rome.

ANDRAEMON: Husband of Dryope.

ANDROMACHE: Wife of Hector.

ANDROMEDA: Daughter of Cepheus; chained to cliff for monster to devour; rescued by Perseus.

ANTEIA: Wife of Proetus; tried to induce Bellerophon to elope with her.

ANTEROS: God who avenged unrequited love.

ANTIGONE: Daughter of Oedipus; accompanied him to Colonus; performed burial rite for Polynices and was buried alive.

ANTINOÜS: Leader of suitors of Penelope; slain by Odysseus.

APHRODITE (VENUS): Goddess of love and beauty; daughter of Zeus; mother of Eros.

APOLLO: God of beauty, poetry, music; later identified with Helios as Phoebus Apollo; son of Zeus and Leto.

AQUILO: *See* Winds.

ARACHNE: Maiden who challenged Athena to weaving contest; changed to spider.

ARES (MARS): God of war; son of Zeus and Hera.

ARGO: Ship in which Jason and followers sailed to Colchis for Golden Fleece.

ARGUS: Monster with hundred eyes; slain by Hermes; his eyes placed by Hera into peacock's tail.

ARIADNE: Daughter of Minos; aided Theseus in slaying Minotaur; deserted by him on island of Naxos and married to Dionysus.

ARION: Musician; thrown overboard by pirates but saved by dolphin.

ARTEMIS (DIANA): Goddess of moon; huntress; twin sister of Apollo.

ASCLEPIUS (AESCULAPIUS): Mortal son of Apollo; slain by Zeus for raising dead; later deified as god of medicine. Also known as Asklepios.

ASTARTE: Phoenician goddess of love; variously identified with Aphrodite, Selene, and Artemis.

ASTRAEA: Goddess of Justice; daughter of Zeus and Themis.

ATALANTA: Princess who challenged her suitors to a foot race; Hippomenes won race and married her.

ATHENA (MINERVA): Goddess of wisdom; known poetically as Pallas Athene; sprang fully armed from head of Zeus.

ATLAS: Titan; held world on his shoulders as punishment for warring against Zeus; son of Iapetus.

ATREUS: King of Mycenae; father of Menelaus and Agamemnon; brother of Thyestes, three of whose sons he slew and served to him at banquet; slain by Aegisthus.

ATROPOS: *See* Fates.

AURORA: *See* Eos.

AUSTER: *See* Winds.

AVERNUS: Infernal regions; name derived from small vaporous lake near Vesuvius which was fabled to kill birds and vegetation.

BACCHUS: *See* Dionysus.

BELLEROPHON: Corinthian hero; killed Chimera with aid of Pegasus; tried to reach Olympus on Pegasus and was thrown to his death.

BELLONA: Roman goddess of war.

BOREAS: *See* Winds.

BRIAREUS: Monster of hundred hands; son of Uranus and Gaea.

BRISEIS: Captive maiden given to Achilles; taken by Agamemnon in exchange for loss of Chryseis, which caused Achilles to cease fighting, until death of Patroclus.

CADMUS: Brother of Europa; planter of dragon seeds from which first Thebans sprang.

CALLIOPE: *See* Muses.

CALYPSO: Sea nymph; kept Odysseus on her island Ogygia for seven years.

CASSANDRA: Daughter of Priam; prophetess who was never believed; slain with Agamemnon.

CASTOR: *See* Dioscuri.

CELAENO: *See* Pleiades.

CENTAURS: Beings half man and half horse; lived in mountains of Thessaly.

CEPHALUS: Hunter; accidentally killed his wife Procris with his spear.

CEPHEUS: King of Ethiopia; father of Andromeda.

CERBERUS: Three-headed dog guarding entrance to Hades.

CERES: *See* Demeter.

CHAOS: Formless void; personified as first of gods.

CHARON: Boatman on Styx who carried souls of dead to Hades; son of Erebus.

CHARYBDIS: Female monster; personification of whirlpool.

CHIMERA: Female monster with head of lion, body of goat, tail of serpent; killed by Bellerophon.

CHIRON: Most famous of centaurs.

CHRONOS: Personification of time.

CHRYSEIS: Captive maiden given to Agamemnon; his refusal to accept ransom from her father Chryses caused Apollo to send plague on Greeks besieging Troy.

CIRCE: Sorceress; daughter of Helios; changed Odysseus' men into swine.

CLIO: *See* Muses.

CLOTHO: *See* Fates.

CLYTEMNESTRA: Wife of Agamemnon, whom she slew with aid of her paramour, Aegisthus; slain by her son Orestes.

COCYTUS: *See* Rivers.

CREON: Father of Jocasta; forbade burial of Polynices; ordered burial alive of Antigone.

CREÜSA: Princess of Corinth, for whom Jason deserted Medea; slain by Medea, who sent her poisoned robe; also known as Glauke.

CREÜSA: Wife of Aeneas; died fleeing Troy.

CRONUS (SATURN): Titan; god of harvests; son of Uranus and Gaea; dethroned by his son Zeus.

CUPID: *See* Eros.

CYBELE: Anatolian nature goddess; adopted by Greeks and identified with Rhea.

CYCLOPES: Race of one-eyed giants (singular: Cyclops).

DAEDALUS: Athenian artificer; father of Icarus; builder of Labyrinth in Crete; devised wings attached with wax for him and Icarus to escape Crete.

DANAË: Princess of Argos; mother of Perseus by Zeus, who appeared to her in form of golden shower.

DANAÏDES: Daughters of Danaüs; at his command, all except Hypermnestra slew their husbands, the sons of Aegyptus.

DANAÜS: Brother of Aegyptus; father of Danaïdes; slain by Lynceus.

DAPHNE: Nymph; pursued by Apollo; changed to laurel tree.

DECUMA: *See* Fates.

DEINO: *See* Graeae.

DEMETER (CERES): Goddess of agriculture; mother of Persephone.

DIANA: *See* Artemis.

DIDO: Founder and queen of Carthage; stabbed herself when deserted by Aeneas.

DIOMEDES: Greek hero; with Odysseus, entered Troy and carried off Palladium, sacred statue of Athena.

DIOMEDES: Owner of man-eating horses, which Hercules, as ninth labor, carried off.

DIONE: Titan goddess; mother by Zeus of Aphrodite.

DIONYSUS (BACCHUS): God of wine; son of Zeus and Semele.

DIOSCURI: Twins Castor and Pollux; sons of Leda by Zeus.

DIS: *See* Hades.

DRYADS: Wood nymphs.

DRYOPE: Maiden changed to Hamadryad.

ECHO: Nymph who fell hopelessly in love with Narcissus; faded away except for her voice.

ELECTRA: Daughter of Agamemnon and Clytemnestra; sister of Orestes; urged Orestes to slay Clytemnestra and Aegisthus.

ELECTRA: *See* Pleiades.

ELYSIUM: Abode of blessed dead.

ENDYMION: Mortal loved by Selene.

ENYO: *See* Graeae.

EOS (AURORA): Goddess of dawn.

EPIMETHEUS: Brother of Prometheus; husband of Pandora.

ERATO: *See* Muses.

EREBUS: Spirit of darkness; son of Chaos.

ERINYES: *See* Furies.

ERIS: Goddess of discord.

EROS (AMOR or CUPID): God of love; son of Aphrodite.

ETEOCLES: Son of Oedipus, whom he succeeded to rule alternately with Polynices; refused to give up throne at end of year; he and Polynices slew each other.

EUMENIDES: *See* Furies.

EUPHROSYNE: *See* Graces.

EUROPA: Mortal loved by Zeus, who, in form of white bull, carried her off to Crete.

EURUS: *See* Winds.

EURYALE: *See* Gorgons.

EURYDICE: Nymph; wife of Orpheus.

EURYSTHEUS: King of Argos; imposed twelve labors on Hercules.

EUTERPE: *See* Muses.

FATES: Goddesses of destiny: Clotho (Spinner of thread of life), Lachesis (Determiner of length), and Atropos (Cutter of thread); also called Moirae. Identified by Romans with their goddesses of fate; Nona, Decuma, and Morta; called Parcae.

FAUNS: Roman deities of woods and groves.

FAUNUS: *See* Pan.

FAVONIUS: *See* Winds.

FLORA: Roman goddess of flowers.

FORTUNA: Roman goddess of fortune.

FURIES: Avenging spirits: Alecto, Megaera, and Tisiphone; known also as Erinyes or Eumenides.

GAEA: Goddess of earth; daughter of Chaos; mother of Titans; known also as Ge, Gea, Gaia, etc.

GALATEA: Statue of maiden carved from ivory by Pygmalion; given life by Aphrodite.

GALATEA: Sea nymph; loved by Polyphemus.

GANYMEDE: Beautiful boy; successor to Hebe as cupbearer of gods.

GLAUCUS: Mortal who became sea divinity by eating magic grass.

GLAUKE: *See* Creüsa.

GOLDEN FLEECE: Fleece from ram that flew Phrixos to Colchis; Aeëtes placed it under guard of dragon; carried off by Jason.

GORGONS: Female monsters: Euryale, Medusa, and Stheno; had snakes for hair; their glances turned mortals to stone. *See* Medusa.

GRACES: Beautiful goddesses: Aglaia (Brilliance), Euphrosyne (Joy), and Thalia (Bloom); daughters of Zeus.

GRAEAE: Sentinels for Gorgons: Deino, Enyo, and Pephredo; had one eye among them, which passed from one to another.

HADES (DIS): Name sometimes given Pluto; also, abode of dead, ruled by Pluto.

HAEMON: Son of Creon; promised husband of Antigone; killed himself in her tomb.

HAMADRYADS: Tree nymphs; lived and died with trees they inhabited.

HARPIES: Monsters with heads of women and bodies of birds.

HEBE (JUVENTAS): Goddess of youth; cupbearer of gods before Ganymede; daughter of Zeus and Hera.

HECATE: Goddess of sorcery and witchcraft.

HECTOR: Son of Priam; slayer of Patroclus; slain by Achilles.

HECUBA: Wife of Priam.

HELEN: Fairest woman in world; daughter of Zeus and Leda; wife of Menelaus; carried to Troy by Paris, causing Trojan War.

HELIADES: Daughters of Helios; mourned for Phaëthon and were changed to poplar trees.

HELIOS (SOL): God of sun; later identified with Phoebus Apollo.

HELLE: Sister of Phrixos; fell from ram of Golden Fleece; water where she fell named Hellespont.

HEPHAESTUS (VULCAN): God of fire; celestial blacksmith; son of Zeus and Hera; husband of Aphrodite.

HERA (JUNO): Queen of heaven; wife of Zeus.

HERCULES: Hero and strong man; son of Zeus and Alcmene; performed twelve

labors or deeds to be free from bondage under Eurystheus; after death, his mortal share was destroyed, and he became immortal. Also known as Herakles or Heracles. Labors: (1) killing Nemean lion; (2) killing Lernaean Hydra; (3) capturing Erymanthian boar; (4) capturing Cerynean hind; (5) killing man-eating Stymphalian birds; (6) procuring girdle of Hippolyte; (7) cleaning Augean stables; (8) capturing Cretan bull; (9) capturing man-eating horses of Diomedes; (10) capturing cattle of Geryon; (11) procuring golden apples of Hesperides; (12) bringing Cerberus up from Hades.

HERMES (MERCURY): God of physicians and thieves; messenger of gods; son of Zeus and Maia.

HERO: Priestess of Aphrodite; Leander swam Hellespont nightly to see her; drowned herself at his death.

HESPERUS: Evening star.

HESTIA (VESTA): Goddess of hearth; sister of Zeus.

HIPPOLYTE: Queen of Amazons; wife of Theseus.

HIPPOLYTUS: Son of Theseus and Hippolyte; falsely accused by Phaedra of trying to kidnap her; slain by Poseidon at request of Theseus.

HIPPOMENES: Husband of Atalanta, whom he beat in foot race by dropping golden apples, which she stopped to pick up.

HYACINTHUS: Beautiful youth accidentally killed by Apollo, who caused flower to spring up from his blood.

HYDRA: Nine-headed monster in marsh of Lerna; slain by Hercules.

HYGEIA: Personification of health.

HYMEN: God of marriage.

HYPERION: Titan; early sun god; father of Helios.

HYPERMNESTRA: Daughter of Danaüs; refused to kill her husband Lynceus.

HYPNOS (SOMNUS): God of sleep.

IAPETUS: Titan; father of Atlas, Epimetheus, and Prometheus.

ICARUS: Son of Daedalus; flew too near sun with wax-attached wings and fell into sea and was drowned.

IO: Mortal maiden loved by Zeus; changed by Hera into heifer.

IOBATES: King of Lycia; sent Bellerophon to slay Chimera.

IPHIGENIA: Daughter of Agamemnon; offered as sacrifice to Artemis at Aulis; carried by Artemis to Tauris where she became priestess; escaped from there with Orestes.

IRIS: Goddess of rainbow; messenger of Zeus and Hera.

ISMENE: Daughter of Oedipus; sister of Antigone.

IULUS: Son of Aeneas.

IXION: King of Lapithae; for making love to Hera he was bound to endlessly revolving wheel in Tartarus.

JANUS: Roman god of gates and doors; represented with two opposite faces.

JASON: Son of Aeson; to gain throne of Ioclus from Pelias, went to Colchis and brought back Golden Fleece; married Medea; deserted her for Creüsa.

JOCASTA: Wife of Laius; mother of Oedipus; unwittingly became wife of Oedipus; hanged herself when relationship was discovered.

JUNO: *See* Hera.

JUPITER: *See* Zeus.

JUVENTAS: *See* Hebe.

LACHESIS: *See* Fates.

LAIUS: Father of Oedipus, by whom he was slain.

LAOCOÖN: Priest of Apollo at Troy; warned against bringing wooden horse into Troy; destroyed with his two sons by serpents sent by Athena.

LARES: Roman ancestral spirits protecting descendants and homes.

LAVINIA: wife of Aeneas after defeat of Turnus.

LEANDER: Swam Hellespont nightly to see Hero; drowned in storm.

LEDA: Mortal loved by Zeus in form of Swan; mother of Helen, Clytemnestra, Dioscuri.

LETHE: *See* Rivers.

LETO (LATONA): Mother by Zeus of Artemis and Apollo.

LUCINA: Roman goddess of childbirth; identified with Juno.

LYNCEUS: Son of Aegyptus; husband of Hypermnestra; slew Danaüs.

MAIA: Daughter of Atlas; mother of Hermes.

MAIA: *See* Pleiades.

MANES: Souls of dead Romans, particularly of ancestors.

MARS: *See* Ares.

MARSYAS: Shepherd; challenged Apollo to music contest and lost; flayed alive by Apollo.

MEDEA: Sorceress; daughter of Aeëtes; helped Jason obtain Golden Fleece; when deserted by him for Creüsa, killed her children and Creüsa.

MEDUSA: Gorgon; slain by Perseus, who cut off her head.

MEGAERA: *See* Furies.

MELEAGER: Son of Althaea; his life would last as long as brand burning at his birth; Althaea quenched and saved it but destroyed it when Meleager slew his uncles.

MELPOMENE: *See* Muses.

MEMNON: Ethiopian king; made immortal by Zeus; son of Tithonus and Eos.

MENELAUS: King of Sparta; son of Atreus; brother of Menelaus; husband of Helen.

MERCURY: *See* Hermes.

MEROPE: *See* Pleiades.

MEZENTIUS: Cruel Etruscan king; ally of Turnus against Aeneas; slain by Aeneas.

MIDAS: King of Phrygia; given gift of turning to gold all he touched.

MINERVA: *See* Athena.

MINOS: King of Crete; after death, one of three judges of dead in Hades; son of Zeus and Europa.

MINOTAUR: Monster, half man and half beast, kept in Labyrinth in Crete; slain by Theseus.

MNEMOSYNE: Goddess of memory; mother by Zeus of Muses.

MOIRAE: *See* Fates.

MOMUS: God of ridicule.

MORPHEUS: God of dreams.

MORS: *See* Thanatos.

MORTA: *See* Fates.

MUSES: Goddesses presiding over arts and sciences: Calliope (epic poetry), Clio (history), Erato (lyric and love poetry), Euterpe (music), Melpomene (tragedy), Polymnia or Polyhymnia (sacred poetry), Terpsichore (choral dance and song), Thalia (comedy and bucolic poetry), Urania (astronomy); daughters of Zeus and Mnemosyne.

NAIADS: Nymphs of waters, streams, and fountains.

NAPAEAE: Wood nymphs.

NARCISSUS: Beautiful youth loved by Echo; in punishment for not returning her love, he was made to fall in love with his image reflected in pool; pined away and became flower.

NEMESIS: Goddess of retribution.

NEOPTOLEMUS: Son of Achilles; slew Priam; also known as Pyrrhus.

NEPTUNE: *See* Poseidon.

NEREIDS: Sea nymphs; attendants on Poseidon.

NESTOR: King of Pylos; noted for wise counsel in expedition against Troy.

NIKE: Goddess of victory.

NIOBE: Daughter of Tantalus; wife of Amphion; her children slain by Apollo and Artemis; changed to stone but continued to weep her loss.

NONA: *See* Fates.

NOTUS: *See* Winds.

NOX: *See* Nyx.

NYMPHS: Beautiful maidens; inferior deities of nature.

NYX (NOX): Goddess of night.

OCEANIDS: Ocean nymphs; daughters of Oceanus.

OCEANUS: Eldest of Titans; god of waters.

ODYSSEUS (ULYSSES): King of Ithaca; husband of Penelope; wandered ten years after fall of Troy before arriving home.

OEDIPUS: King of Thebes; son of Laius and Jocasta; unwittingly murdered Laius and married Jocasta; tore his eyes out when relationship was discovered.

OENONE: Nymph of Mount Ida; wife of Paris, who abandoned her; refused to cure him when he was poisoned by arrow of Philoctetes at Troy.

OPS: *See* Rhea.

OREADS: Mountain nymphs.

ORESTES: Son of Agamemnon and Clytemnestra; brother of Electra; slew Cytemnestra and Aegisthus; pursued by Furies until his purification by Apollo.

ORION: Hunter; slain by Artemis and made heavenly constellation.

ORPHEUS: Famed musician; son of Apollo and Muse Calliope; husband of Eurydice.

PALES: Roman goddess of shepherds and herdsmen.

PALINURUS: Aeneas' pilot; fell overboard in his sleep and was drowned.

PAN (FAUNUS): God of woods and fields; part goat; son of Hermes.

PANDORA: Opener of box containing human ills; mortal wife of Epimetheus.

PARCAE: *See* Fates.

PARIS: Son of Priam; gave apple of discord to Aphrodite, for which she enabled him to carry off Helen; slew Achilles at Troy; slain by Philoctetes.

PATROCLUS: Great friend of Achilles; wore Achilles' armor and was slain by Hector.

PEGASUS: Winged horse that sprang from Medusa's body at her death; ridden by Bellerophon when he slew Chimera.

PELIAS: King of Ioclus; seized throne from his brother Aeson; sent Jason for Golden Fleece; slain unwittingly by his daughters at instigation of Medea.

PELOPS: Son of Tantalus; his father cooked and served him to gods; restored to life; Peloponnesus named for him.

PENATES: Roman household gods.

PENELOPE: Wife of Odysseus; waited faithfully for him for ten years while putting off numerous suitors.

PEPHREDO: *See* Graeae.

PERIPHETES: Giant; son of Hephaestus; slain by Theseus.

PERSEPHONE (PROSERPINE): Queen of infernal regions; daughter of Zeus and Demeter; wife of Pluto.

PERSEUS: Son of Zeus and Danaë; slew Medusa; rescued Andromeda from monster and married her.

PHAEDRA: Daughter of Minos; wife of Theseus; falsely accused Hippolytus of trying to kidnap her.

PHAËTHON: Son of Helios; drove his father's sun chariot and was struck down by Zeus before he set world on fire.

PHILOCTETES: Greek warrior who possessed Hercules' bow and arrows; slew Paris at Troy with poisoned arrow.

PHINEUS: Betrothed of Andromeda; tried to slay Perseus but turned to stone by Medusa's head.

PHLEGETHON: *See* Rivers.

PHOSPHOR: Morning star.

PHRIXOS: Brother of Helle; carried by ram of Golden Fleece to Colchis.

PIRITHOUS: Son of Ixion; friend of Theseus; tried to carry off Persephone from Hades; bound to enchanted rock by Pluto.

PLEIADES: Alcyone, Celaeno, Electra, Maia, Merope, Sterope or Asterope, Taygeta; seven daughters of Atlas; transformed into heavenly constellation, of which six stars are visible (Merope is said to have hidden in shame for loving a mortal).

PLUTO (DIS): God of Hades; brother of Zeus.

PLUTUS: God of wealth.

POLLUX: *See* Dioscuri.

POLYMNIA: *See* Muses.

POLYNICES: Son of Oedipus; he and his brother Eteocles killed each other; burial rite, forbidden by Creon, performed by his sister Antigone.

POLYPHEMUS: Cyclops; devoured six of Odysseus' men; blinded by Odysseus.

POLYXENA: Daughter of Priam; betrothed to Achilles, whom Paris slew at their betrothal; sacrificed to shade of Achilles.

POMONA: Roman goddess of fruits.

PONTUS: Sea god; son of Gaea.

POSEIDON (NEPTUNE): God of sea; brother of Zeus.

PRIAM: King of Troy; husband of Hecuba; ransomed Hector's body from Achilles; slain by Neoptolemus.

PRIAPUS: God of regeneration.

PROCRIS: Wife of Cephalus, who accidentally slew her.

PROCRUSTES: Giant; stretched or cut off legs of victims to make them fit iron bed; slain by Theseus.

PROETUS: Husband of Anteia; sent Bellerophon to Iobates to be put to death.

PROTEUS: Sea god; assumed various shapes when called on to prophesy.

PSYCHE: Beloved of Eros; punished by jealous Aphrodite; made immortal and united with Eros.

PYGMALION: King of Cyprus; carved ivory statue of maiden which Aphrodite gave life as Galatea.

PYRAMUS: Babylonian youth; made love to Thisbe through hole in wall; thinking Thisbe slain by lion, killed himself.

PYRRHUS: *See* Neoptolemus.

PYTHON: Serpent born from slime left by Deluge; slain by Apollo.

QUIRINUS: Roman war god.

REMUS: Brother of Romulus; slain by him.

RHADAMANTHUS: One of three judges of dead in Hades; son of Zeus and Europa.

RHEA (OPS): Daughter of Uranus and Gaea; wife of Cronus; mother of Zeus; identified with Cybele.

RIVERS OF UNDERWORLD: Acheron (woe), Cocytus (wailing), Lethe (forgetfulness), Phlegethon (fire), Styx (across which souls of dead were ferried by Charon).

ROMULUS: Founder of Rome; he and Remus suckled in infancy by she-wolf; slew Remus; deified by Romans.

SARPEDON: King of Lycia; son of Zeus and Europa; slain by Patroclus at Troy.

SATURN: *See* Cronus.

SATYRS: Hoofed demigods of woods and fields; companions of Dionysus.

SCIRON: Robber; forced strangers to wash his feet, then hurled them into sea where tortoise devoured them; slain by Theseus.

SCYLLA: Female monster inhabiting rock opposite Charybdis; menaced passing sailors.

SELENE: Goddess of moon.

SEMELE: Daughter of Cadmus; mother by Zeus of Dionysus; demanded Zeus appear before her in all his splendor and was destroyed by his lightnings.

SIBYLS: Various prophetesses; most famous, Cumaean sibyl, accompanied Aeneas into Hades.

SILENI: Minor woodland deities similar to satyrs (singular: silenus). Sometimes Silenus refers to eldest of satyrs, son of Hermes or of Pan.

SILVANUS: Roman god of woods and fields.

SINIS: Giant: bent pines, by which he hurled victims against side of mountain; slain by Theseus.

SIRENS: Minor deities who lured sailors to destruction with their singing.

SISYPHUS: King of Corinth; condemned in Tartarus to roll huge stone to top of hill; it always rolled back down again.

SOL: *See* Helios.

SOMNUS: *See* Hypnos.

SPHINX: Monster of Thebes; killed those who could not answer her riddle*; slain by Oedipus. Name also refers to other monsters having body of lion, wings, and head and bust of woman.

STEROPE: *See* Pleiades.

STHENO: *See* Gorgons.

STYX: *See* Rivers.

* What animal goes on 4 feet in morning, 2 at noon, 3 at night? Answer: Man (crawls when child, walks when adult, uses staff when old).

SYMPLEGADES: Clashing rocks at entrance to Black Sea; Argo passed through, causing them to become forever fixed.

SYRINX: Nymph pursued by Pan; changed to reeds, from which he made his pipes.

TANTALUS: Cruel king; father of Pelops and Niobe; condemned in Tartarus to stand chin-deep in lake surrounded by fruit branches; as he tried to eat or drink, water or fruit always receded.

TARTARUS: Underworld below Hades; often refers to Hades.

TAYGETA: *See* Pleiades.

TELEMACHUS: Son of Odysseus; made unsuccessful journey to find his father.

TELLUS: Roman goddess of earth.

TERMINUS: Roman god of boundaries and landmarks.

TERPSICHORE: *See* Muses.

TERRA: Roman earth goddess.

THALIA: *See* Graces; Muses.

THANATOS (MORS): God of death.

THEMIS: Titan goddess of laws of physical phenomena; daughter of Uranus; mother of Prometheus.

THESEUS: Son of Aegeus; slew Minotaur; married and deserted Ariadne; later married Phaedra.

THISBE: Beloved of Pyramus; killed herself at his death.

THYESTES: Brother of Atreus; Atreus killed three of his sons and served them to him at banquet.

TIRESIAS: Blind soothsayer of Thebes.

TISIPHONE: *See* Furies.

TITANS: Early gods from which Olympian gods were derived; children of Uranus and Gaea.

TITHONUS: Mortal loved by Eos; changed into grasshopper.

TRITON: Demigod of sea; son of Poseidon.

TURNUS: King of Rutuli in Italy; betrothed to Lavinia; slain by Aeneas.

ULYSSES: *See* Odysseus.

URANIA: *See* Muses.

URANUS: Personification of Heaven; husband of Gaea; father of Titans; dethroned by his son Cronus.

VENUS: *See* Aphrodite.

VERTUMNUS: Roman god of fruits and vegetables; husband of Pomona.

VESTA: *See* Hestia.

VULCAN: *See* Hephaestus.

WINDS: Aeolus (keeper of winds), Boreas (Aquilo) (north wind), Eurus (east wind), Notus (Auster) (south wind), Zephyrus (Favonius) (west wind).

ZEPHYRUS: *See* Winds.

ZEUS (JUPITER): Chief of Olympian gods; son of Cronus and Rhea; husband of Hera.

Norse Mythology

AESIR: Chief gods of Asgard.

ANDVARI: Dwarf; robbed of gold and magic ring by Loki.

ANGERBOTHA (Angrbotha): Giantess; mother by Loki of Fenrir, Hel, and Midgard serpent.

ASGARD (Asgarth): Abode of gods.

ASK (Aske, Askr): First man; created by Odin, Hoenir, and Lothur.

ASYNJUR: Goddesses of Asgard.

ATLI: Second husband of Gudrun; invited Gunnar and Hogni to his court, where they were slain; slain by Gudrun.

AUDHUMLA (Audhumbla): Cow that nourished Ymir; created Buri by licking ice cliff.

BALDER (Baldr, Baldur): God of light, spring, peace, joy; son of Odin; slain by Hoth at instigation of Loki.

BIFROST: Rainbow bridge connecting Midgard and Asgard.

BRAGI (Brage): God of poetry; husband of Ithunn.

BRANSTOCK: Great oak in hall of Volsungs; into it, Odin thrust Gram, which only Sigmund could draw forth.

BRYNHILD: Valkyrie; wakened from magic sleep by Sigurd; married Gunnar; instigated death of Sigurd; killed herself and was burned on pyre beside Sigurd.

BUR (Bor): Son of Buri; father of Odin, Hoenir, and Lothur.

BURI (Bori): Progenitor of gods; father of Bur; created by Audhumla.

EMBLA: First woman; created by Odin, Hoenir, and Lothur.

FAFNIR: Son of Rodmar, whom he slew for gold in Otter's skin; in form of dragon, guarded gold; slain by Sigurd.

FENRIR: Wolf; offspring of Loki; swallows Odin at Ragnarok and is slain by Vitharr.

FORSETI: Son of Balder.

FREY (Freyr): God of fertility and crops; son of Njorth; originally one of Vanir.

FREYA (Freyja): Goddess of love and beauty; sister of Frey; originally one of Vanir.

FRIGG (Frigga): Goddess of sky; wife of Odin.

GARM: Watchdog of Hel; slays, and is slain by, Tyr at Ragnarok.

GIMLE: Home of blessed after Ragnarok.

GIUKI: King of Nibelungs; father of Gunnar, Hogni, Guttorm, and Gudrun.

GLATHSHEIM (Gladsheim): Hall of gods in Asgard.

GRAM (meaning "Angry"): Sigmund's sword; rewelded by Regin; used by Sigurd to slay Fafnir.

GREYFELL: Sigmund's horse; descended from Sleipnir.

GRIMHILD: Mother of Gudrun; administered magic potion to Sigurd which made him forget Brynhild.

GUDRUN: Daughter of Giuki; wife of Sigurd; later wife of Atli and Jonakr.

GUNNAR: Son of Giuki; in his semblance Sigurd won Brynhild for him; slain at hall of Atli.

GUTTORM: Son of Giuki; slew Sigurd at Brynhild's request.

HEIMDALL (Heimdallr): Guardian of Asgard.

HEL: Goddess of dead and queen of underworld; daughter of Loki.

HIORDIS: Wife of Sigmund; mother of Sigurd.

HOENIR: One of creators of Ask and Embla; son of Bur.

HOGNI: Son of Giuki; slain at hall of Atli.

HOTH (Hoder, Hodur): Blind god of night and darkness; slayer of Balder at instigation of Loki.

ITHUNN (Ithun, Iduna): Keeper of golden apples of youth; wife of Bragi.

JONAKR: Third husband of Gudrun.

JORMUNREK: Slayer of Swanhild; slain by sons of Gudrun.

JOTUNNHEIM (Jotunheim): Abode of giants.

LIF and LIFTHRASIR: First man and woman after Ragnarok.

LOKI: God of evil and mischief; instigator of Balder's death.

LOTHUR (Lodur): One of creators of Ask and Embla.

MIDGARD (Midgarth): Abode of mankind; the earth.

MIDGARD SERPENT: Sea monster; offspring of Loki; slays, and is slain by, Thor at Ragnarok.

MIMIR: Giant; guardian of well in Jotunnheim at root of Yggdrasill; knower of past and future.

MJOLLNIR: Magic hammer of Thor.

NAGLFAR: Ship to be used by giants in attacking Asgard at Ragnarok; built from nails of dead men.

NANNA: Wife of Balder.

NIBELUNGS: Dwellers in northern kingdom ruled by Giuki.

NIFLHEIM (Nifelheim): Outer region of cold and darkness; abode of Hel.

NJORTH: Father of Frey and Freya; originally one of Vanir.

NORNS: Demigoddesses of fate: Urth (Urdur) (Past), Verthandi (Verdandi) (Present), Skuld (Future).

ODIN (Othin): Head of Aesir; creator of world with Vili and Ve; equivalent to Woden (Wodan, Wotan) in Teutonic mythology.

OTTER: Son of Rodmar; slain by Loki; his skin filled with gold hoard of Andvari to appease Rodmar.

RAGNAROK: Final destruction of present world in battle between gods and giants; some minor gods will survive, and Lif and Lifthrasir will repeople world; known in Germany as Götterdämmerung, "Twilight of the Gods."

REGIN: Blacksmith; son of Rodmar; foster-father of Sigurd.

RERIR: King of Huns; son of Sigi.

RODMAR: Father of Regin, Otter, and Fafnir; demanded Otter's skin be filled with gold; slain by Fafnir, who stole gold.

SIF: Wife of Thor.

SIGGEIR: King of Goths; husband of Signy; he and his sons slew Volsung and his sons, except Sigmund; slain by Sigmund and Sinfiotli.

SIGI: King of Huns; son of Odin.

SIGMUND: Son of Volsung; brother of Signy, who bore him Sinfiotli; husband of Hiordis, who bore him Sigurd.

SIGNY: Daughter of Volsung; sister of Sigmund; wife of Siggeir; mother by Sigmund of Sinfiotli.

SIGURD: Son of Sigmund and Hiordis; wakened Brynhild from magic sleep; married Gudrun; slain by Guttorm at instigation of Brynhild.

SIGYN: Wife of Loki.

SINFIOTLI: Son of Sigmund and Signy.

SKULD: *See* Norns.

SLEIPNIR (Sleipner): Eight-legged horse of Odin.

SURT (Surtr): Fire demon; slays Frey at Ragnarok.

SVARTALFAHEIM: Abode of dwarfs.

SWANHILD: Daughter of Sigurd and Gudrun; slain by Jormunrek.

THOR: God of thunder; oldest son of Odin; equivalent to Germanic deity Donar.

TYR: God of war; son of Odin; equivalent to Tiu in Teutonic mythology.

ULL (Ullr): Son of Sif; stepson of Thor.

URTH: *See* Norns.

VALHALLA (Valhall): Great hall in Asgard where Odin received souls of heroes killed in battle.

VALI: Son of Odin; survivor of Ragnarok.

VALKYRIES: Virgins, messengers of Odin, who selected heroes to die in battle and took them to Valhalla; generally considered as nine in number.

VANIR: Early race of gods; three survivors, Njorth, Frey, and Freya, are associated with Aesir.

VE: Brother of Odin; one of creators of world.

VERTHANDI: *See* Norns.

VILI: Brother of Odin; one of creators of world.

VINGOLF: Abode of goddesses in Asgard.

VITHARR (Vithar): Son of Odin; survivor of Ragnarok.

VOLSUNG: King of Huns; son of Rerir; father of Signy, Sigmund, etc.; his descendants were called Volsungs.

YGGDRASILL: Giant ash tree springing from body of Ymir and supporting universe; its roots extended to Asgard, Jotunnheim, and Nifiheim.

YMIR (Ymer): Primeval frost giant killed by Odin, Vili, and Ve; world created from his body; also, from his body sprang Yggdrasill.

Egyptian Mythology

AARU: Abode of the blessed dead.

AMEN (Amon, Ammon): One of chief Theban deities; united with sun god under form of Amen-Ra.

AMENTI: Region of dead where souls were judged by Osiris.

ANUBIS: Guide of souls to Amenti; son of Osiris; jackal-headed.

APIS: Sacred bull, an embodiment of Ptah; identified with Osiris as Osiris-Apis or Serapis.

GEB (Keb, Seb): Earth god; father of Osiris; represented with goose on head.

HATHOR (Athor): Goddess of love and mirth; cow-headed.

HORUS: God of day; son of Osiris and Isis; hawk-headed.

ISIS: Goddess of motherhood and fertility; sister and wife of Osiris; sometimes shown as cow-headed.

KHEPERA: God of morning sun; represented by beetle.

KHNEMU (Khnum, Chnuphis, Chnemu, Chnum): Ram-headed god.

KHONSU (Khensu, Khuns): Son of Amen and Mut.

MENTU (Ment): Solar deity, sometimes considered god of war; falcon-headed.

MIN (Khem, Chem): Principle of physical life.

MUT (Maut): Wife of Amen.

NEPHTHYS: Goddess of the dead; sister and wife of Set.

NU: Chaos from which world was created, personified as a god.

NUT: Goddess of heavens; consort of Geb.

OSIRIS: God of underworld and judge of dead; son of Geb and Nut.

PTAH (Phtha): Chief deity of Memphis; father of gods and men.

RA: God of the Sun, the supreme god; son of Nut; Pharaohs claimed descent from him; represented as lion, cat, or falcon.

SERAPIS: God uniting attributes of Osiris and Apis.

SET (Seth): God of darkness or evil; brother and enemy of Osiris.

SHU: Solar deity; son of Ra and Hathor.

TEM (Atmu, Atum, Tum): Solar deity representing setting sun.

THOTH (Dhouti): God of wisdom and magic; scribe of gods; ibis-headed.

Opera and Operetta Composers

(The operas listed with each composer are not necessarily the only ones which he composed. Rather, they are those which remain best-known today—either because of occasional or frequent performances, or because of the popularity of overtures, arias, etc. The year and location after each opera are those of the first official performance.)

Auber, Daniel François (1782–1871): Fra Diavalo (1830, Paris).

Balfe, Michael (1808–1870): The Bohemian Girl (1843, London).

Beethoven, Ludwig van (1770–1827): Fidelio (1805, Vienna).

Bellini, Vincenzo (1801–1835): La Somnambula (1831, Milan); Norma (1831, Milan); I Puritani (1835, Paris).

Berg, Alban (1885–1935): Lulu (1924, Berlin); Wozzeck (1937, Zürich).

Berlioz, Hector (1803–1869): Benvenuto Cellini (1838, Paris); The Damnation of Faust (1846, Paris); Beatrice and Benedict (1862, Baden-Baden); Les Troyens (*).

Bizet, Georges (1838–1875): The Pearl Fishers (1863, Paris); Carmen (1875, Paris).

Blitzstein, Marc (1905–): The Cradle Will Rock (1937, New York); Regina (1949, New York).

Boito, Arrigo (1842–1918): Mefistofele (1868, Milan).

Borodin, Alexander (1834–1887): Prince Igor (1890, Petrograd).

Britten, Benjamin (1913–): Paul Bunyan (1941, New York); Peter Grimes (1945, London); The Rape of Lucrece (1946, Glyndebourne, Eng.).

Charpentier, Gustave (1860–): Louise (1900, Paris).

Coward, Noel (1899–): Bitter Sweet (1929, London).

* Originally written as one opera but divided by Berlioz into two parts: *La Prise de Troie* and *Les Troyens à Carthage*. The second part was first performed in 1863 in Paris. The work as a whole was first performed in 1890 in Karlsruhe.

Damrosch, Walter (1862–1950): The Scarlet Letter (1896, Boston); The Man Without a Country (1937, New York).

Debussy, Claude (1862–1918): Pelléas et Mélisande (1902, Paris).

De Koven, Reginald (1859–1920): Robin Hood (1890, Chicago).

Delibes, Léo (1836–1891): Lakmé (1883, Paris).

Donizetti, Gaetano (1797–1848): L'Elisir d'Amore (1832, Milan); Lucia di Lammermoor (1835, Naples); The Daughter of the Regiment (1840, Paris); Don Pasquale (1843, Paris).

Falla, Manuel de (1876–1946): La Vida Breve (1913, Nice).

Flotow, Friedrich von (1812–1883): Martha (1847, Vienna).

Friml, Rudolf (1884–): The Firefly (1912, Syracuse, N. Y.); Katinka (1915, New York); Rose Marie (1924, New York); The Vagabond King (1925, New York).

Gershwin, George (1898–1937): Porgy and Bess (1935, New York).

Giordano, Umberto (1867–1948): Andrea Chénier (1896, Milan); Madame Sans-Gêne (1915, New York).

Glinka, Mikhail (1803–1857): A Life for the Tsar (1836, Petrograd); Russlan and Ludmilla (1842, Petrograd).

Gluck, Christoph Willibald (1714–1787): Orfeo ed Euridice (1762, Vienna); Iphigenia in Aulis (1777, Paris); Iphigenia in Tauris (1779, Paris).

Goldmark, Karl (1830–1915): The Queen of Sheba (1875, Vienna).

Gounod, Charles François (1818–1893): Faust (1859, Paris); Romeo and Juliet (1867, Paris).

Halévy, Jacques François (1799–1862): La Juive (1835, Paris).

Herbert, Victor (1859–1924): The Fortune Teller (1898, New York); Babes in Toyland (1903, Chicago); Mlle. Modiste (1905, New York); The Red Mill (1906, New York); Naughty Marietta (1910, New York); Natoma (1911, Philadelphia); Sweethearts (1913, Baltimore); The Princess Pat (1915, New York); Eileen (1917, New York).

Herold, Louis J. F. (1791–1833): Zampa (1831, Paris).

Humperdinck, Engelbert (1854–1921): Hansel and Gretel (1893, Weimar).

Kodály, Zoltán (1882–): Háry János (1926, Budapest).

Křenek, Ernst (1900–): Jonny Spielt Auf (1927, Leipzig).

Lehár, Franz (1870–1948): The Merry Widow (1907, London); The Count of Luxemburg (1909, Vienna); Gypsy Love (1911, New York).

Leoncavallo, Ruggiero (1858–1919): I Pagliacci (1892, Milan).

Mascagni, Pietro (1863–1945): Cavalleria Rusticana (1890, Rome); L'Amico Fritz (1891, Rome).

Massenet, Jules (1842–1912): Hérodiade (1881, Brussels); Manon (1884, Paris); Thaïs (1894, Paris).

Menotti, Gian-Carlo (1911–): Amelia Goes to the Ball (1937, Philadelphia); The Medium (1946, New York); The Telephone (1947, New York); The Consul (1950, New York).

Meyerbeer, Giacomo (1791–1864): Les Huguenots (1836, Paris); Le Prophète (1849, Paris); L'Africana (1865, Paris).

Montemezzi, Italo (1875–): L'Amore dei Tre Re (1913, Milan).

Mozart, Wolfgang Amadeus (1756–1791): Idomeneo (1781, Munich); The Abduction from the Seraglio (1782, Vienna); The Marriage of Figaro (1786, Vienna); Don Giovanni (1787, Prague); Così fan Tutti (1790, Vienna); The Magic Flute (1791, Vienna).

Musorgski, Modest (1835–1881): Boris Godunov (1874, Petrograd); Khovanshchina (1886, Petrograd).

Nicolai, Otto (1810–1849): The Merry Wives of Windsor (1849, Berlin).

Offenbach, Jacques (1819–1880): Orpheus in Hades (1858, Paris); The Tales of Hoffmann (1881, Paris).

Pepusch, John Christopher (1667–1752): The Beggar's Opera (1728, London).

Pergolesi, Giovanni Battista (1710–1736): La Serva Padrona (1733, Naples).

Planquette, Robert (1848–1903): The Chimes of Normandy (1877, Paris).

Ponchielli, Amilcare (1834–1886): La Gioconda (1876, Milan).

Prokofieff, Serge (1891–): The Love for Three Oranges (1921, Chicago).

Puccini, Giacomo (1858–1924): Manon Lescaut (1893, Turin); La Bohème (1896, Turin); Tosca (1900, Rome); Madame Butterfly (1904, Milan); Girl of the Golden West (1910, New York); Turandot (1926, Milan).

Purcell, Henry (1659–1695): Dido and Aeneas (1689, Chelsea, Eng.).

Ravel, Maurice (1875–1937): L'Heure Espagnole (1911, Paris); L'Enfant et les Sortilèges (1925, Monte Carlo).

Rimski-Korsakov, Nikolai (1844–1908): The Snow Maiden (1882, Petrograd); Sadko (1897, Moscow); Le Coq d'Or (1909, Moscow).

Romberg, Sigmund (1887–): Maytime (1917, New York); Blossom Time (1921, New York); The Student Prince (1924, New York); The Desert Song (1926, New York); The New Moon (1928, New York).

Rossini, Gioacchino (1792–1868): The Barber of Seville (1816, Rome); Semira-

mide (1823, Venice); William Tell (1829, Paris).

Saint-Saëns, Camille (1835–1920): Samson et Dalila (1877, Weimar).

Smetana, Bedřich (1824–1884): The Bartered Bride (1866, Prague).

Straus, Oskar (1870–): The Chocolate Soldier (1908, Vienna).

Strauss, Johann (1825–1899): Die Fledermaus (1874, Vienna); The Gypsy Baron (1885, Vienna).

Strauss, Richard (1864–1949): Salome (1905, Dresden); Elektra (1909, Dresden); Der Rosenkavalier (1911, Dresden); Ariadne auf Naxos (1912, Zürich).

Stravinsky, Igor (1882–): The Nightingale (1914, Paris).

Sullivan, Sir Arthur (1842–1900): Trial by Jury (1875, London); The Sorcerer (1877, London); H.M.S. Pinafore (1878, London); The Pirates of Penzance (1879, New York); Patience (1881, London); Iolanthe (1882, London); Princess Ida (1884, London); The Mikado (1885, London); Ruddigore (1887, London); The Yeoman of the Guard (1888, London); The Gondoliers (1889, London).

Suppé, Franz von* (1819–1895): The Beautiful Galatea (1865, Vienna); Light Cavalry (1866, Vienna).

Taylor, Deems (1885–): The King's Henchman (1927, New York); Peter Ibbetson (1931, New York).

Tchaikovsky, Peter Ilich (1840–1893): Eugene Onegin (1879, Moscow); Joan of Arc (1881, Petrograd); Pique Dame (1890, Petrograd).

Thomas, Ambroise (1811–1896): Mignon (1866, Paris); Hamlet (1868, Paris).

Thomson, Virgil (1896–): Four Saints in Three Acts (1934, Hartford, Conn.).

Verdi, Giuseppe (1813–1901): Ernani (1844, Venice); Rigoletto (1851, Venice); Il Trovatore (1853, Rome); La Traviata (1853, Venice); Simon Boccanegra (1857, Venice); A Masked Ball (1859, Rome); La Forza del Destino (1862, Petrograd); Don Carlos (1867, Paris); Aïda (1871, Cairo); Otello (1887, Milan); Falstaff (1893, Milan).

Wagner, Richard (1813–1883): Rienzi (1842, Dresden); The Flying Dutchman (1843, Dresden); Tannhäuser (1845, Dresden); Lohengrin (1850, Weimar); Tristan and Isolde (1865, Munich); Die Meistersinger (1868, Munich); Das Rheingold (1869, Munich); Die Walküre (1870, Munich); Siegfried (1876, Bayreuth); Götterdämmerung (1876, Bayreuth); Parsifal (1882, Bayreuth).

Weber, Karl Maria von (1786–1826): Der Freischütz (1821, Berlin); Euryanthe (1823, Vienna); Oberon (1826, London).

Weill, Kurt (1900–1950): Die Dreigroschenoper (1928, Berlin); Street Scene (1947, New York); Down in the Valley (1948, Bloomington, Ind.); Lost in the Stars (1949, New York).

Wolf-Ferrari, Ermanno (1876–1948): The Secret of Suzanne (1909, Munich); The Jewels of the Madonna (1911, Berlin).

*Suppé's popular *Poet and Peasant* overture was written for a play rather than for an operetta.

Derivations of the Names of the Months

January: From *Janus*, the two-faced Roman god who looked both into the future and the past.

February: From *februa*, Roman feast of purification held on the 15th of this month.

March: From *Mars*, the Roman god of war.

April: Derivation uncertain. Perhaps from the Latin word *aperire* (to open) in regard to the opening of trees and flowers.

May: Derivation uncertain. Perhaps from the Roman goddess *Maia*, or from the Latin word *maius* (great), which was applied to Jupiter. Also may derive from the Latin word *maiores*, as being dedicated to age.

June: Derivation uncertain. Perhaps from the Roman goddess *Juno*, or from the Latin word *iuniores*, as being dedicated to youth. Also may derive from the consulate *Junius Brutus*.

July: From *Julius Caesar*. Originally called *Quintilis*.

August: From the Emperor *Augustus* of Rome. Originally called *Sextilis*.

September: From *septem*, the Latin word for seven. The Roman year originally had only ten months, beginning with March. January and February were later added.

October: From *octo*, the Latin word for eight.

November: From *novem*, the Latin word for nine.

December: From *decem*, the Latin word for ten.

Names of the Days

Sunday: From the *Sun*.

Monday: From the *Moon*.

Tuesday: From *Tyr*, the Norse god of war.

Wednesday: From *Woden*, the highest Anglo-Saxon god.

Thursday: From *Thor*, the Norse god of thunder.

Friday: From *Friga*, the wife of Woden.

Saturday: From the planet *Saturn*.

NOTE: In ancient Rome, each day was named for the planet ruling its first hour. The Anglo-Saxons retained three of these derivations (Sunday, Monday, Saturday) but substituted their own gods in naming the other four days.

THE OTHER NATIONS OF THE WORLD

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A GUIDE TO MAIN HISTORICAL, POLITICAL, ECONOMIC, GEOGRAPHIC AND SOCIAL FACTS

Prepared by the Staff of ENCYCLOPAEDIA BRITANNICA

Under the direction of

WALTER YUST, Editor-in-chief

A record of later events may be found in the section: NEWS RECORD OF 1951.

Afghanistan (Kingdom)

Area: approx. 270,000 square miles.
Population (est. 1949): 12,000,000 (approx. 35% Afghan, 21% Tadchik, 8.5% Mongolian, 35.5% others).
Density per square mile: 44.
Ruler: Mohammed Zaher Shah.
Prime Minister: Sardar Shah Mahmud.
Principal cities (est.): Kabul, 206,000 (capital); Kandahar, 77,000 (trading center); Herat, 76,000 (farming center).
Monetary unit: Afghani rupee.
Languages: Pushtu (official), Persian.
Religion: Mohammedan (Sunni, 90%; Shiah, 10%).

HISTORY. Wedged between Pakistan, Iran and the U.S.S.R. in southwestern Asia without outlet to the sea, Afghanistan did not become an independent state until 1747. Previously, it had been either a cluster of small states under nominal Arab rule, part of Mongol or Mogul empires, or dismembered among India, Persia and the Uzbeks.

By the 19th century Afghanistan had passed into the British sphere of influence, though the British had to dispatch troops more than once to enforce Afghan friendliness. In 1880 the British recognized Abdur Rahman Khan as Emir and gave him an annual subsidy of more than $500,000 to delegate management of his foreign relations to Britain. His son, Habibullah, succeeded him in 1901 and kept Afghanistan neutral in World War I despite strong pressure of pro-Turkish elements.

On Aug. 8, 1919, a treaty was signed making Afghanistan free and independent of all British control. The country maintained strict neutrality in World War II, and was admitted to the United Nations in Nov., 1946. Relations with Pakistan have been strained by a dispute over areas inhabited by the Pathans in the North West Frontier Province.

GOVERNMENT. Under the 1932 constitution, Afghanistan is a constitutional monarchy, with authority vested in the sovereign and parliament, which has a senate of 60 members who are named for life by the sovereign and a national assembly of 120 elected members. Executive power is exercised by the sovereign and cabinet headed by the prime minister. The sovereign, Mohammed Zaher Shah, was born Oct. 15, 1914.

Military service is compulsory. The army strength is about 90,000, supplemented by tribal bands. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education is nominally compulsory. Primary schools exist in many parts of the country, but secondary schools only in Kabul and provincial capitals. There were about 100,000 pupils in 425 schools in 1948. There is a university at Kabul.

Only a fifth of the soil is under cultivation, the greater part of the country being mountainous and rocky. Farming is confined to the fertile valleys and plains, sometimes with the aid of irrigation. Two crops a year are usually grown. Important ones include fruits and nuts, castor beans, cereals, madder, tobacco, cotton and vegetables. Wheat is the staple food. The fat-tailed indigenous sheep is the principal source of meat, wearing apparel and skins for export. Camels, humped cattle, oxen and asses are numerous.

Important manufactures include silk, felt, sheepskin coats, soap, carpets and boots. Factories have been erected by gov-

ernment monopolies to produce skins, sugar, textiles, vehicles, and power.

Among the leading exports are karakul skins (mostly to the U.S.), cotton, wool, rugs, carpets and dried fruits.

Most of the trade normally is carried on through Pakistan; wool is exported to the U.S.S.R. in return for consumers' goods. Exports in 1948–49 were estimated at Rs. 900;000,000 and imports at slightly less than that amount.

Afghanistan has no railways or navigable streams. Camels and pack horses are still used by the natives, but motor transport is of increasing importance. The principal trade routes lead south through the Khyber and Khojak Passes to Pakistan, and north to the Uzbek and Turkmen Soviet Socialist Republics. There are about 6,000 miles of roads suitable for motor transport.

Both mineral and forest resources are largely unexploited. There are deposits of chromite, coal, copper, gold, iron ore, oil and silver. Timber and gum resin are obtained.

NATURAL FEATURES; CLIMATE. Afghanistan, approximately the size of Texas, is split east to west by the Hindu Kush range of the Himalayas, rising in the east to heights of 24,000 feet. Except in the southwest, most of the country is covered by high snow-capped mountains and deep valleys. The few passes are deep and narrow. The Amu Darya (Oxus), Kabul and Helmand are the most important rivers, and there are hundreds of swift and unnavigable mountain streams. The climate ranges from extremes of below zero to more than 100° in the north; however, it is not so extreme in the south, although snowfall is heavy all over the country in winter. Rainfall, chiefly in the spring, is relatively light. The hottest weather occurs in summer and is particularly severe around Kandahar.

Albania (Republic)

(Shqiperia)

Area: 10,629 square miles.
Population (est. 1949): 1,186,000 (Albanian 99.8%; others, .2%).
Density per square mile: 111.6.
Chairman of Presidium: Omer Nishani.
Premier: Enver Hoxha.
Principal cities (est. 1949): Tirana, 40,000 (capital); Scutari, 30,000 (northern trading center); Koritsa, 28,000 (farming center).
Monetary unit: Lek.
Language: Albanian.
Religions (est.): Moslem, 69%; Orthodox Christian, 21%; Roman Catholic, 10%.

HISTORY. A tiny, backward state approximately the size of Maryland, Albania has acquired considerable importance since World War II because of its close ties with the Soviet Union and its strategic location at the mouth of the Adriatic. After the fall of the Roman Empire, Albania became part of the Byzantine Empire and was successively invaded by Goths, Serbs and Bulgarians. From 1014 to 1204 it was again under Byzantine rule. An alliance of Albanian chieftains (1444–66) under Skanderbeg failed to halt the advance of the Turks, and the country remained under at least nominal Turkish rule for more than four centuries, until it proclaimed its independence on Nov. 28, 1912.

During World War I Albania was variously occupied by Italian, Greek, French, Serb and Austro-Bulgarian forces. On Aug. 2, 1920, Italy recognized Albanian independence and evacuated the country. Ahmed Zogu, premier in 1922–23, ousted the government of Mgr. Fan Noli in 1924 and became president of a newly constituted republic in 1925. Three years later, after concluding pacts which placed Albania in Italy's sphere of influence, Zogu proclaimed himself King Zog 1.

In 1939, Italy occupied the country in a matter of days. During the Greco-Italian war of 1940–41, the Greek armies pushed the Italians back from the Albanian border and occupied a large part of southern Albania. When Germany attacked Greece and Yugoslavia in April, 1941, however, the Greeks withdrew quickly, and the Axis occupation of Albania was complete.

Albania was free of the Axis yoke by the end of 1944, and a leftist provisional government under Colonel General Enver Hoxha was established. That regime was confirmed in power by subsequent elections, and British, Soviet and U. S. recognition. Since then, Albania has collaborated closely with the Soviet Union and supported Moscow and the Cominform in the latter's break with the Tito regime in Yugoslavia. Albania also quarreled frequently with Greece and the western powers. Two main sources of dispute with Greece were the latter's claim to the Albanian territory of Northern Epirus and its charge that Albania was arming anti-government Greek guerrillas.

International tension rose in 1947 when two British destroyers were sunk by mines in the Corfu channel. Britain lodged a sharp protest and referred its complaint to the U. N. Security Council. The Council's decision, favorable to Britain, was vetoed by the U.S.S.R., and Britain carried its case to the International Court of Justice, which ruled on April 9, 1949, that Albania should pay damages to Britain.

GOVERNMENT. Under its 1945 constitution, Albania has a typical soviet government. Supreme power is vested in the popularly elected national assembly, to which the cabinet, headed by the premier, is responsible. The army, estimated at 60,-

000 men, maintains close liaison with the U.S.S.R.

Albania's sovereignty over Saseno, a small but strategic Adriatic island, was confirmed by the Italian peace treaty of 1947.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is nominally compulsory, but illiteracy is high, especially among women. There is a teachers' college at Tirana.

Albanians are called Ghegs and Tosks, according to whether they live north or south of the Shkumbi River. They live in clans or tribes, in a feudal manner. Moslems predominate in most sections.

Albania is still a primitive country where each family tries to provide most of its own needs. Nearly the whole population is engaged in combined farming and stock-raising. Only a small portion of the central part is fit for tilling. Corn is the chief crop. Others are wheat, tobacco, oats, barley, rye, spelt, olives and citrus fruit. Only a few factories are engaged in processing Albania's food products.

Albania's postwar trade has been limited in volume. Exports include wool, hides, fur, dairy products and bitumen.

Railroad mileage was only 60 in 1949, but two lines are said to be under construction. Good highways were developed by the Italians for strategic purposes, and the Russians continued such construction. The principal and only fully equipped port is Durazzo.

Mineral wealth, thought to be considerable, is relatively unexploited. The principal minerals are aluminum and petroleum, which were developed to some extent during the Italian occupation of 1939–44. There are also deposits of lignite, bitumen, asphalt, gypsum, copper and iron.

Forest resources include large stands of oak, walnut, chestnut and elm, and in the high regions, beech, pine and fir.

NATURAL FEATURES; CLIMATE. Albania is a mountainous state, largely over 3,000 ft. above sea level, with a narrow marshy coastal plain crossed by several rivers. A complex, often inaccessible mountainous hinterland encloses small fertile basins, and contains some wide valleys, of which the largest is that of Lake Ohrid in the southeast. The interior mountain plateaus and basins contain the centers of population. With the exception of the Bojana in the northwest, which is the outlet of Lake Scutari (135 sq. mi.) to the Adriatic, there are no navigable rivers.

The climate is typically Mediterranean, with dry, hot summers and moderate winters. Inland temperatures are lower than those on the coast. Winter frosts occur in the southern part of the country.

Arabia

The Arabian peninsula is at the southwest extremity of Asia. Its rich oil deposits and proximity to Palestine gave it special importance after World War II. Once a political unit, today it consists of the kingdoms of Saudi Arabia and Yemen, the British colony of Aden and six British protectorates.

The peninsula, with an area more than three times that of Texas, and an extreme length of 1,400 miles, is generally a plateau sloping gently eastward from a mountain range that averages 5,000 feet in elevation and runs along its entire west side within ten or fifteen miles of the Red Sea. The range reaches a maximum of 12,336 feet in Yemen to the southwest. Arabia has no rivers and no forests and is principally a desert dotted with many oases.

Most of the peninsula, particularly the interior, has a hot desert climate with frequent changes in temperature. The highlands of the Yemen and southwestern Saudi Arabia, however, together with parts of Oman, have a temperate climate. Jidda, on the Red Sea, has an average daily high temperature of 93° during August.

Mohammed united all Arabs in the 7th century A.D., and his followers, led by the caliphs, founded a great empire with its capital at Medina. Later, the caliphate capital was transferred to Damascus and then Baghdad, but Arabia retained its importance because of the holy cities of Mecca and Medina. In the 16th and 17th centuries, the Turks established at least nominal rule over much of Arabia, and in the middle of the 18th century it was divided into separate principalities.

Through agreements with local rulers, the British extended their rule over the southern and eastern coasts in the 19th century. At the same time, the Wahhabis, a religious sect advocating strict adherence to Mohammed's teachings, gained control over most of central and eastern Arabia, and their work was the beginning of the present Saudi Arabia.

Political Divisions of Arabia

Name	Area (sq. mi.)	Population (est. 1949)
Aden colony (British)	80	82,000
Aden protectorate†	112,000	650,000
Bahrein Islands (Sultanate)†	213	110,000
Kuwait (Sheikdom)†	9,000	120,000
Oman and Masqat (Sultanate)†	65,000	830,000
Qatar (Sheikdom)†	4,000	16,000
Saudi Arabia	597,000	6,000,000
Trucial Coast (Sheikdoms)†	16,000	105,000
Yemen (Kingdom)	31,000	1,600,000

† British protectorate.

Saudi Arabia (Kingdom)

The most important state of the peninsula is almost solely the creation of King Ibn Sa'ud. In 1901, at the age of twenty, he seized the emirate of Riyadh and soon set himself up as the leader of the Arab nationalist movement. During World War I he collaborated with the famous T. E. Lawrence in the successful "desert revolt" against Turkey. On the collapse of Turkey at the end of the war, he freed the whole peninsula from Turkish rule, and through a series of local military campaigns was able to proclaim himself King of Hejaz and Nejd and dependencies in 1927. His territories became the Kingdom of Saudi Arabia in 1932.

Hejaz and Nejd are still under separate administrations. In Nejd, whose capital is Riyadh, Ibn Sa'ud's rule is absolute. The eldest of his numerous sons, Prince Sa'ud, acts as viceroy in his absence. The constitution of Hejaz, whose capital is Mecca, provides for a cabinet of ministers headed by the King's second son, Prince Faisal, who likewise acts as viceroy in his father's absence. There is a consultative legislative assembly in Mecca and various municipal village and tribal councils whose members are named or approved by the King.

The majority of the inhabitants are Bedouin—nomads following their flocks over the desert. There are a few large towns —Mecca, birthplace of the Prophet (150,000), Medina, site of the tomb of the Prophet (45,000), Jidda, port of Mecca on the Red Sea (40,000), and Riyadh, capital of Nejd (60,000).

In Hejaz, Medina produces dates in the oases, and fruit and honey; otherwise, its products are such desert commodities as camels, horses, sheep, hides, charcoal and wool. The most important commercial activity outside of the oil industry is the annual influx of Moslem pilgrims to Mecca and Medina. The products of Nejd include dates, wheat, barley, hides, wool, fruits, butter, camels and livestock.

Oil is produced by the U. S.-owned Arabian-American Oil Company, whose principal field is at Dharan near the Persian Gulf coast. Production has skyrocketed since World War II. The company's expenditures and payroll are important invisible exports, and royalties have immensely strengthened the financial position of the kingdom, which receives one-half the company's profits under an agreement announced Jan. 2, 1951. A pipe line running north from Damman through Jordan and Syria to the Mediterranean port of Sidon, Lebanon, went into operation in 1951. In 1950 the output totaled 199,546,638 barrels.

Numerous public works projects, including road, rail and port construction, are being carried out by U. S. engineers, but camel transportation still prevails in most of the country. Air service is provided by TWA, BOAC and the government-owned Saudi Arabian Airlines.

Kuwait (Sheikdom)

Kuwait, on the northwestern shore of the Persian Gulf, is an independent state ruled by Sheik Abdullah as-Salim as-Subah. British protection, first exercised in 1898, has several times prevented it from being absorbed by Saudi Arabia. The territory surrounding Al Kuwait, its port, is largely desert; its trade consists of exchanging Arab goods from the interior for textiles, rice, sugar and other necessities. Kuwait's petroleum reserves, estimated at 9 billion barrels, are under concession to the Kuwait Oil Co. Production in 1950: 125,722,396 bbl.

Oman and Masqat (Sultanate)

Occupying the mountainous southeastern part of the peninsula, Oman is nominally an independent state under the rule of Sultan Sayyid Sa'id bin Taimur. It has been under British protection since the 19th century. The state is best known for its date cultivation, and its riding camels are considered the best in the world. Trade is mainly to and from India. The capital, Masqat (population 4,200), commands the entrance to the Persian Gulf.

Qatar (Sheikdom)

Qatar occupies the whole of the Qatar peninsula in the Persian Gulf. It is ruled, under British protection, by Sheik Abdullah ibn Jasim eth Thani. The whole area is claimed by Saudi Arabia. Oil deposits are being exploited by a subsidiary of the Iraq Petroleum Co.; output in 1950, the first full year of operation, was about 12,000,000 barrels.

Trucial Coast (Sheikdoms)

This area, extending along part of the Gulf of Oman and the southern coast of the Persian Gulf, is ruled by 7 semi-independent sheiks. Treaties signed with Britain in 1853 and 1892 provided that the sheiks should not cede or sell any part of their land to any other power.

Yemen (Kingdom)

Yemen is an independent state occupying the southwestern extremity of the peninsula. Its ruler is Imam Ahmad, who succeeded to the throne, March, 1948, after insurgents murdered his father, King Yahya.

Its sovereign status was confirmed by the Treaty of San'a with Britain and India (Feb. 11, 1934) and the Treaty of Taif concluded with Saudi Arabia at the cessation of hostilities between the two states on May 13, 1934. The people are permanently settled and are for the most part engaged in agriculture, fishing and trade. Chief products are Mocha coffee, and sheep and goat skins. Much of the trade goes through

the port of Aden. The capital and principal town is San'a (population about 25,000).

(For Aden and Bahrein Islands, *see* British Commonwealth: Asia)

Argentina (Republic)

(República Argentina)

Area: 1,079,965 square miles.
Population (est. June 30, 1950); 17,097,889 (approximately 97% of European descent, chiefly Spanish and Italian; 3% Indian and other).
Density per square mile: 15.8.
President: Juan D. Perón.
Principal cities (census 1947): Buenos Aires, 3,000,371 (capital and chief port); Rosario, 464,688 (flour milling); Córdoba, 351,644 (northwest farming center); Avellaneda, 279,572 (industrial suburb of Buenos Aires); Lanús, 272,760 (suburb of Buenos Aires); La Plata, 271,738 (seaport; meat packing).
Monetary unit: Peso.
Languages: Spanish (official), Italian.
Religion: Roman Catholic (state-supported).

HISTORY. Discovered in 1516 by Juan Díaz de Solís, Argentina developed slowly under Spanish colonial rule. Buenos Aires was settled permanently in 1580 and became a prosperous city; the cattle industry of the Argentine pampas was thriving as early as 1600.

Invading British forces were expelled in 1806–07, and when Napoleon conquered Spain, the Argentinians set up their own government in the name of the Spanish king in 1810. On July 9, 1816, independence was formally declared. Internal dissension, particularly between Buenos Aires and the provinces, was put down under the dictator Juan Manuel de Rosas, who brought about unification from 1829 to 1852. Rosas was overthrown by Justo José de Urquiza, who became the first president under the 1853 constitution, modeled after that of the U. S.

Argentina made great material progress under Presidents Sarmiento (1868–74), Avellaneda (1874–80) and Roca (1880–86). The secret ballot was introduced in 1910 by President Roque Sáenz Peña.

President Hipólito Irigoyen (1916–22) refused to abandon Argentinian neutrality in World War I. Re-elected in 1928, Irigoyen, a radical, was ousted two years later by a conservative revolution led by General José Uriburu. The latter's successor, General Agustín Justo (1932–38) followed a moderate policy and undertook a large public works program. Under the leadership of a former radical, Roberto M. Ortiz, Argentina proclaimed neutrality at the outbreak of World War II, but in general co-operated in hemispheric defense programs.

Ortiz resigned because of illness in June, 1940, and was succeeded by Vice President Ramón Castillo, a conservative, whose regime was toppled in June, 1943, by a revolt led by General Pedro P. Ramírez. The latter abolished all political parties and broke relations with the Axis on Jan. 26, 1944, after disclosures of German spy activity in Argentina. A clique of army officers, apparently fearing that this would lead to war with Germany, replaced Ramírez on Feb. 24, 1944, with General Edelmiro Farrell.

In the closing months of World War II, Farrell's regime declared war on the Axis (March 27, 1945) and signed the Act of Chapultepec the following April 4. Diplomatic recognition and admission to the U. N. followed. Juan D. Perón, then an army colonel, emerged as strongman and won the 1946 presidential elections. Congress became completely controlled by Perón supporters. An apparent plot to overthrow Perón was crushed in 1951.

GOVERNMENT. Argentina is a federal union of fourteen provinces and ten territories. Under the new constitution promulgated in 1949, a president and vice president are elected every six years by direct popular vote. The president appoints his cabinet. The vice president presides over the Senate but has no other powers. Both executives are eligible for re-election. The National Congress has two houses—a thirty-member Senate popularly elected for six-year terms, and a Chamber of Deputies (one for each 100,000 electors) popularly elected for six years, one-half the membership of each house being renewed every three years.

Each province has its own constitution, elected governor, legislature and judiciary, but the president may in a crisis take over the local government.

The president, with Senate approval, appoints for life-terms the judges of the federal supreme court, five courts of appeal, and district courts (at least one in each province).

DEFENSE. Under legislation enacted Nov. 29, 1946, all men and women 12 to 50 are subject to military service at the president's discretion. Service from 20 to 22 is compulsory. Active army strength in 1950 was estimated at 100,000; a complete modernization program was under way.

The air force has about 150 combat planes. The navy in 1950 totaled approximately 95,000 tons, including two modernized battleships, three light cruisers and 11 fleet destroyers. The budgetary allotment for defense in 1951 was 25 per cent.

EDUCATION. Argentina's estimated illiteracy rate of 7–10 per cent is the lowest in all Latin America. Education is free, secular and compulsory between six and fourteen. In 1949 there were 14,649 primary

schools with 2,074,233 pupils, 1,414 public and private secondary, normal and special schools with 240,976 students, and 6 universities with 88,823 students.

AGRICULTURE. A farming and stock-raising nation, Argentina devotes 41 per cent of its area to pasture and 11 per cent to cultivation. More than 70 per cent of the cultivated land is planted in cereals, and approximately 20 per cent is in alfalfa for stock feed. Cotton, sugar cane and fruits are important, and Argentina is the world's largest producer of yerba maté (Paraguay tea), the national beverage. The 1950 wine production was 317,000,000 gallons.

Estimated crop production for 1950, in short tons, was as follows: wheat, 5,670,-231; oats, 595,352; barley, 435,098; linseed, 744,934; corn, 930,140; refined sugar, 675,703; tobacco, 26,785.

Cattle raising predominates on the pampas, especially in Buenos Aires province. Sheep raising is more important in Patagonia. In 1947 there were 41,268,470 cattle, 50,856,556 sheep, 2,981,406 hogs and 7,237,-663 horses. Wool production in 1950 was 210,000 short tons.

MANUFACTURING. Industrial expansion was accelerated during World War II by the shortage of imports, but industry is still closely allied to agriculture. The principal industry is meat refrigeration, followed by flour milling, textiles, sugar refining, dairy products, quebracho extraction and wine. In 1941 there were 57,940 industrial establishments (101,884 in 1947); products were valued at 6,337,000,000 pesos (7,800,000,000 in 1943). The number of industrial workers averaged 1,169,000 in 1948.

TRADE. Argentina's trade position, favorable in the immediate postwar period, deteriorated steadily in subsequent years as dollar exchange became scarcer. Trade statistics are as follows (in millions of pesos):

	1948	1949	1950*
Exports	5,541.8	3,718.9	5,284.1
Imports	6,189.7	4,641.7	4,830.1

* Provisional.

Exports in 1949 included meat, wool, hides, and other animal products (50.5 per cent), agricultural products (45.0 per cent) and forest products (2.3 per cent). Imports included machinery (21.5 per cent), textiles (18.6 per cent) and iron and steel (16.8 per cent). Exports in 1950 went principally to the U. S. (20 per cent), Britain (18 per cent) and Brazil (8 per cent). Principal suppliers were the U. S. (17 per cent), France (14 per cent) and Britain (11 per cent).

COMMUNICATIONS. According to *Lloyd's Register*, the merchant fleet on June 30, 1950, consisted of 369 steamers and motorships (100 tons and over) aggregating 913,-517 gross tons, an increase of 202.1 per cent over 1939. The chief Argentine ports are Buenos Aires, second only to New York in the western hemisphere, and La Plata, both on the Plata estuary; and Rosario, a port on the Paraná River.

Railway mileage is about 27,000, nearly all of which radiates outward from Buenos Aires. With the purchase in 1947–48 of the British- and French-owned railways, the system is now government-owned. Highway mileage is upwards of 300,000, largely unimproved. Telephones in Dec. 1950 totaled 719,000; broadcasting stations, 58; radio sets, 2,200,000. The air-transportation system is government-owned; domestic air routes extend as far south as Tierra del Fuego. Direct international connections with the rest of the world are maintained by 11 international airlines.

FINANCE. The 1951 budget, as passed by Congress, totaled 13,073,900,000 pesos, distributed as follows: national administration, 4,844,000,000 pesos (covered by general revenue with surplus of 100,000 pesos); public works, 1,059,600,000 pesos (to be covered by borrowing, except for 100,000 pesos); special accounts, 1,182,400,-000 pesos (self-balancing); autonomous agencies, 5,987,900,000 pesos (self-balancing). In addition, 1,300,000,000 pesos were allotted for the five-year plan. The national debt was 16,643,000,000 pesos on June 30, 1950.

TOPOGRAPHY. Second in South America to Brazil in size and population, Argentina is about 2,070 miles long and 860 miles wide at the maximum. In general, the country is a plain, rising westward from the Atlantic to the Chilean border and the towering Andes peaks, including Aconcagua, 22,835 feet, the highest peak in the world outside Asia. The northern area of the Argentine plain is the swampy and partly wooded Gran Chaco. South of that to the Río Negro are the rolling, fertile pampas, rich for agriculture and grazing, and supporting most of Argentina's population. Next southward is Patagonia, a region of cool, arid steppes with some wooded and fertile sections. The eastern part of Tierra del Fuego, the island southern tip of South America, belongs to Argentina.

CLIMATE. Except for the northern Gran Chaco, which has mild winters and torrid summers, Argentina lies in the south temperate zone. The pampas region has an average temperature of 60°, and freezing is rare. Temperature extremes increase progressively southward. All over Argentina, January is the warmest month and June and July are coolest. At Buenos Aires, the mean annual temperature in January-February is about 73°; in June-July, 50°. The heaviest rainfall, over sixty inches a

year, hits the Gran Chaco, while on the pampas it ranges from twenty inches in the west to forty in the northeast.

RIVERS. The three great rivers forming the Plata system—the Paraná, Paraguay and Uruguay—are important commercial arteries in northern Argentina. Rosario and Santa Fé, 260 and 360 miles respectively above Buenos Aires on the Paraná, are accessible to ocean vessels. Many other river ports lie along the three streams' total navigable length of 1,997 miles.

MINERALS. Argentina must import most of nearly every mineral it uses. Oil is produced in Patagonia (1950: 23,353,000 barrels), and there is small mining of tungsten, lead, gold, zinc, tin, silver and beryllium. The government announced discovery of uranium deposits in Feb., 1947. Coal and coke imports in 1950 amounted to 1,447,838 metric tons.

FORESTS. The Gran Chaco area is the world's chief source of quebracho extract. Total exports of this tanning agent obtained from quebracho logs in 1950 were 247,939 metric tons, part of which was re-exported from Paraguay. Other forest products—hardwoods, dyewoods, lignum vitae, red quebracho, medicinal gums and other tannins—are consumed locally for the most part.

Austria (Republic)

(Österreich)

Area: 32,388 square miles.
Population (est. 1949): 7,090,122 (practically all Austrian).
Density per square mile: 218.9.
Allied Council: Walter J. Donnelly (U. S. A.); Lt. Gen. V. P. Sviridov (U.S.S.R.); Sir Harold A. Caccia (United Kingdom); Jean Payart (France).
President: Dr. Theodor Koerner.
Chancellor: Leopold Figl.
Principal cities (est. 1948): Vienna, 1,750,000 (capital, industrial center); Graz, 248,000 (industrial center); Linz, 200,000 (Danube port); Innsbruck, 103,000 (Tyrolean tourist center).
Monetary unit: Schilling.
Language: German.
Religions (est.): Roman Catholic, 93.68%; Protestant, 3.11%; Jewish, 2.93%; unknown, .28%.

HISTORY. Austria, lying at the western edge of the "iron curtain" in central Europe, continued to be occupied by foreign troops after World War II.

The history of Austria before World War I was largely that of the Austro-Hungarian Empire and the Hapsburg dynasty. Its origin was in the province of Ostmark, separated from Bavaria and given to Leopold of Babenberg (A.D. 976) by the Holy Roman Emperor, Otto II. It was ruled by the Babenbergs until 1246, and later passed to Ottakar of Bohemia, who lost it to Rudolf of Hapsburg (1276). In 1437, the three kingdoms of Austria, Hungary and Bohemia were united under the rule of Albert V. For three centuries thereafter, despite almost constant warfare, the states remained for the most part under a single crown. The Hapsburgs gradually added to their possessions, until Charles V, during the 16th century, ruled a vast part of Europe. Emperor Francis I laid down the Holy Roman crown in 1806 at the height of the Napoleonic Wars, in which Austria with her allies was finally victorious. Influence in Germany was lost through defeat by Prussia in the Seven Weeks' War (1866). In 1867, the Dual Monarchy of Austria and Hungary was established, united in the person of the sovereign, Franz Josef I, who ruled until 1916.

Following the defeat of the Central Powers in World War I, the republic of Austria was established in Nov., 1918. It was confined to its present borders by the Treaties of St. Germain (1919) and Trianon (1920). The years immediately following the war were a period of privation, dissension and riots, with Austrian currency becoming worthless and the nation bankrupt. Establishment of a semi-dictatorship by Engelbert Dollfuss, who had become Chancellor in 1932, was followed by an unsuccessful Socialist revolt (Feb., 1934) and an attempted Nazi coup d'état which failed, although Dollfuss was killed. He was succeeded by Kurt von Schuschnigg, whose futile efforts to maintain Austria's independence ended (March 12, 1938) with the bloodless occupation of Austria by German troops. Hitler proclaimed the *Anschluss* of Germany and Austria the next day.

Following the liberation of Vienna by the Red Army (April 13, 1945), Dr. Karl Renner, veteran Socialist, formed a provisional government. Elections held Nov. 25, 1945, resulted in victory for the People's Party, whose leader, Leopold Figl, became chancellor. Dr. Renner was elected president of the Second Austrian Republic (Dec. 20, 1945). He died Dec. 31, 1950; Dr. Theodor Koerner, also a Socialist, was elected President May 27, 1951.

In the years following World War II, there seemed little prospect that Austria would soon regain her independence, since the Big Four could not agree on fundamental issues of reparations and territorial settlement. Then, at the Foreign Ministers Conference in Paris during May-June, 1949, the Big Four reached preliminary agreement on a draft treaty for Austria, the terms to include restoration of the 1937 boundaries (thus ignoring Yugoslav claims) and return of German-owned assets seized by the U.S.S.R. Austria was to

pay Russia $150,000,000 for the latter. Later negotiations among the Big Four bogged down, however.

ALLIED MILITARY GOVERNMENT. Since World War II, Austria within its 1937 frontiers has been divided into four national zones, as is the city of Vienna. The Allied Council and the inter-Allied governing authority of Vienna consist of the ranking officers of the four participating nations—the U. S., Britain, France and the U.S.S.R. Under an agreement signed by the four powers June 28, 1946, the Council's functions are supervisory rather than administrative.

NATIONAL GOVERNMENT. Austria is a federal republic comprised of nine provinces (including Vienna), each of which has its own elected assembly for the control of regional affairs. The federal parliament consists of two houses—the *Bundesrat* whose 50 members are chosen by the provincial assemblies and the *Nationalrat* whose 165 members are chosen by national election. The president of the republic is elected by national popular vote for a term of six years. The government is administered by the chancellor and his cabinet. Party standing in the *Nationalrat* after the elections of Oct. 9, 1949, was as follows: People's Party 77, Socialist 67, Independent 16, Communist 5.

SOCIAL AND ECONOMIC CONDITIONS. In 1948–49, Austria had 5,016 primary schools with 829,326 pupils, 695 secondary and training schools with 73,949 pupils and 4 universities with 19,762 students.

Agriculture employs more than one-third of the population but the country is heavily dependent on imported foodstuffs. About 90 per cent of the total area is classified as productive; of this area, about 40 per cent is intensively cultivated as plowland, meadowland, gardens and vineyards. The amount under plow is relatively small, and mixed farming predominates. Rye and wheat are the leading cereals with 1950 production amounting to 362,100 and 342,500 metric tons, respectively, followed by oats (218,400 tons) and barley (188,700 tons). Potato production was 1,938,300 tons. Other crops include sugar beets, flax, fruits and tobacco.

Stock raising and dairy farming both in the Alpine pastures and the lowlands of the east are of importance. In 1950 there were 2,280,548 cattle, 2,523,182 hogs and 362,457 sheep.

Austria is primarily an industrial country, having, in 1948, 328,729 industrial establishments with 1,978,000 workers (1949). The metallurgical, engineering, textile and wood industries are most important. Styria is responsible for almost all the iron and steel production, which included in 1950 943,352 metric tons of steel and 883,092 tons of pig iron.

Legislation providing for the nationalization of 70 firms, comprising a substantial portion of Austrian basic industry, was enacted late in 1946. Most of the industrially important regions are in the Soviet zone.

The constantly unfavorable prewar trade balance was offset in part by international loans and in part by invisible exports, such as tourist expenditures, income from foreign investments and transit trade.

Trade statistics are as follows (in millions of schillings):

	1948	1949	1950
Exports	1,984	3,229	6,513
Imports:			
commercial	2,209	4,477	7,089
relief and ERP	2,630	1,867	2,110

Principal sources of imports in 1950 were the U. S. (23%, of which 88% was ERP), Western Germany (17%), Britain (7.7%) and Italy (7.2%). Chief customers were Western Germany (15%), Italy (13%), Czechoslovakia (6.1%) and the U. S. (5.6%). The leading exports were iron products (15%), timber (15%), paper (6.0%) and pig iron (5.2%).

The construction of railways and roads has been hampered by physical difficulties. There were 3,762 miles of railway in 1949, partly electrified. Water traffic is restricted for the most part to the Danube River. The major river ports are Linz and, especially, Vienna, which is also an important rail, road and air center.

Government revenue was estimated at 11,793,600,000 schillings in 1951 and expenditure at 11,793,400,000 schillings.

NATURAL FEATURES AND RESOURCES; CLIMATE. Austria covers an area about equal to that of Scotland and includes much of the mountainous territory of the eastern Alps (about 92.3 per cent of the country is classified as mountainous). From the Rhine Valley, Austria's western frontier, these ranges cross the country from west to east, merging on the north and northeast into the Danube Valley and the open Vienna basin. On the east and southeast, the ranges merge into the forested foothills overlooking the undulating countryland of western Hungary. The country contains many snowfields, glaciers and snow-capped peaks. The principal river, the Danube, enters in the northwest and crosses northern Austria.

Austria possesses valuable mineral resources. In Styria lies one of the largest European deposits of iron ore. Copper is mined in Salzburg, Tyrol and lower Austria, and lead and zinc in Carinthia. Other minerals include bauxite, graphite, sulfur and manganese. Fuel resources comprise small coal deposits in lower Austria and

large quantities of lignite, found everywhere except in Salzburg. Large supplies of coal and coke must be imported, but extensive water power resources are available for exploitation. Petroleum fields in the Zistersdorf and Mühlberg areas, both in the Soviet zone, produced an estimated 10,000,100 barrels in 1950. Production of lignite in 1950 was 4,307,501 metric tons.

Variety is the keynote of Austria's climate. The mean annual temperature in the north ranges between 45° and 48°, and in no month does the average exceed 68°. Most of the rainfall occurs during summer. In the Tyrol, mild winters and warm summers (with temperatures often higher than 68°) are customary; maximum precipitation is in spring and summer. The mean annual temperature of Vienna is 49.4°, and the range about 40°.

Belgium (Kingdom)

(Royaume de Belgique—Koninkrijk België)

Area: 11,783 square miles.*
Population (est. Dec. 31, 1950): 8,653,653 (Walloon, Flemish).
Density per square mile: 734.4.
Sovereign: Baudouin I.
Premier: Joseph Pholien.
Principal cities (est. 1948, including suburbs): Brussels (Bruxelles), 1,296,687 (capital); Antwerp (Anvers), 794,280 (port and commercial center); Liége, 573,176 (iron and steel); Ghent (Gand), 442,792 (textiles).
Monetary unit: Belgian franc.
Languages: French, Flemish.
Religion: Predominantly Roman Catholic.

* Including small area taken over from Germany in 1949.

HISTORY. In 1914 and again in 1940, Belgium was crushed by German armies because its position in the Low Country area made it a highway on the invasion route to France. Highly industrial, a bit larger than Maryland and second most densely populated major European nation, Belgium emerged from World War II in fair economic condition but, politically, the country suffered crisis after crisis in the struggle between conservatives and elements of the left, especially over the return of King Leopold III to the throne. Leopold returned to Belgium on July 22, 1950, but violent Socialist-led rioting forced him to agree to turn over his powers to his son, Baudouin. He formally abdicated July 16, 1951, and his son became king as Baudouin I.

Perhaps the earliest mention of the Belgians in history was in 57–50 B.C., when they were conquered by Julius Caesar. In the Middle Ages the Belgian towns became wealthy and virtually autonomous as great textile centers. Belgium became part of Burgundy in 1385 and, later, part of the Spanish domains of Charles V. By the Treaty of Utrecht, in 1713, Belgium went to Austria, though retaining its autonomy, and from 1792 to 1815 it held a similar status under France. United with the Kingdom of the Netherlands by the Congress of Vienna in 1815, the Belgians revolted and proclaimed independence on Oct. 4, 1830, choosing as their sovereign Leopold of Saxe-Coburg. Taking the title of King Leopold I, he ruled from 1831 to 1865.

Belgium progressed peaceably under Leopold I and his son, Leopold II, who reigned from 1865 to 1909, and was succeeded by his nephew, Albert I (1909–34).

Despite heroic Belgian resistance under the personal leadership of Albert, the country was overrun by the Germans in 1914 and occupied throughout World War I. The treaty of 1919 gave Belgium the regions of Moresnet, Eupen and Malmédy, and a mandate over Ruanda-Urundi in Africa.

As World War II approached, Belgium strove to protect its legal neutrality; at the same time the nation rearmed rapidly and built a strong series of fortifications, especially along the Albert Canal. But these defenses were no great obstacle to the Germans, who invaded the country for the second time in a generation on May 10, 1940.

King Leopold III, who had succeeded his father upon the latter's death in a mountain-climbing accident in 1934, ordered the Belgians to surrender to the Nazis and was taken prisoner on May 28, 1940—eighteen days after the first German attack. The cabinet of Hubert Pierlot escaped from the country and set up a government-in-exile in London. When that government returned to Belgium on Sept. 7, 1944, King Leopold's brother, Prince Charles, was elected regent (Leopold was still a prisoner). Pierlot, a Catholic, became head of a coalition government. He was succeeded in Feb., 1945, by Achille van Acker (Soc.).

The Christian Socialists (Catholics) won a plurality in the elections of Feb. 17, 1946. Their pro-Leopold stand prevented them from taking office, however, and the country was ruled by the Liberal-Socialist-Communist cabinets of Van Acker (Mar. 31, 1946) and Camille Huysmans (Aug. 2, 1946) until March, 1947, when Socialist Paul-Henri Spaak formed a Socialist-Christian Socialist coalition cabinet. He was succeeded by Gaston Eyskens, a Christian Socialist, who succeeded in forming a Christian Socialist-Liberal cabinet on Aug. 10, 1949, to end the political stalemate which followed the elections of June 26,

1949. He and his cabinet resigned on Mar. 19, 1950, following a national referendum on Mar. 12 in which 57.7 per cent of the electorate voted for Leopold's return. In elections held June 4, 1950, the Christian Socialists won control of the Chamber of Deputies; succeeding Christian Socialist cabinets were headed by Jean Duvieusart (June 8) and Joseph Pholien (Aug. 15).

On March 17, 1948, Belgium signed a 50-year defense treaty with Britain, France, Luxemburg and the Netherlands, and in April, 1949, the nation joined the North Atlantic alliance.

Baudouin I was born Sept. 7, 1930, the elder son of Leopold III and Queen Astrid, who was killed in an automobile accident in 1935. During World War II, while Leopold was a German prisoner, he married a commoner, Marie Baels. She renounced the title of queen upon marriage, and became Princess de Réthy.

GOVERNMENT. Under the 1831 constitution, Belgium is a constitutional, hereditary monarchy. The king's authority is delegated to the ministers whom he appoints and dismisses to conform with the parliamentary majority. The ministers who constitute the cabinet must have the confidence of parliament, which consists of a 212-member chamber of deputies popularly elected, and a senate of varying membership, elected both directly and indirectly. All members serve for four years unless one or both houses are dissolved by the king, in which case new elections must be held in forty days. Belgium's nine provinces and 2,670 communes have crown-appointed officials but retain considerable autonomy with locally-elected councils.

The election of June 4, 1950, returned 108 Christian Socialists (as against 105 in the June, 1949, election), 77 Socialists (66), 20 Liberals (29) and 7 Communists (12) to the Chamber of Deputies.

The authorized strength of the army in 1951 was 150,000. In the British zone of Germany, Belgium had several thousand men. In Belgian Congo were 18,000 men in three brigades of native troops with Belgian officers. The air force has about 350 combat planes. The navy, abolished in 1928, was reformed after World War II and in 1950 had 2 sloops, 1 frigate and minor craft.

EDUCATION. Education, free and universal for children from six to fourteen, is under state control in three divisions: primary, intermediate and higher. Primary schools in 1948–49 numbered 8,735 with 770,822 pupils; state secondary schools, 257 with 92,634 pupils; and normal schools, 161 with 10,524 students. There are four universities: official, Ghent and Liége; unofficial (private), Brussels and Louvain with a total of 16,723 students in 1949. There are also private schools, many under religious auspices.

AGRICULTURE. About 60 per cent of the total area is under cultivation, and one-half the farmed area is devoted to forage crops. Principal crops in 1950, in metric tons, were wheat, 547,000; oats, 600,000; barley, 240,000; rye, 257,810 (1949); and sugar beets, 2,609,000. Other crops are fodder beets, flax and fruit. The pastoral industry, especially dairy farming, flourishes. On Jan. 1, 1950, Belgium had 1,902,391 cattle, 1,360,784 hogs and 121,185 sheep.

MANUFACTURING. Belgium is one of the most highly industrialized nations in Europe, largely because of vast, readily accessible coal reserves. Industry has not advanced, however, at the expense of agriculture; the Belgian economy is based on both. In Jan., 1948, there were 248,128 industrial establishments with 1,000,010 workers.

The metallurgical, textile and building industries are important. Associated with iron and steel is a considerable engineering industry, shipbuilding in Antwerp, and machinery and railway stock in Brussels. The centuries-old textile industry produces linen (Courtrai); cotton (the southeast); and synthetic fibers. Antwerp, using the output of mines in the Congo and Angola, rivals Amsterdam in diamond cutting.

Foreign trade is especially vital to the Belgian economy. The Belgian-Dutch-Luxemburg customs union (Benelux), established on Jan. 1, 1948, is one of the five great trading areas in the world. Trade of Belgium and Luxemburg (in billions of francs) is as follows:

	1948	1949	1950*
Exports	74.1	79.7	82.4
Imports	87.0	81.1	96.8

* Provisional.

Chief customers in 1950 were the Netherlands (22%), France (9%) and the U. S. and Britain (each 8%). Leading sources of imports were the U. S. (16%), France (11%) and Britain and the Netherlands (each 10%). Chief exports were iron and steel and products (19%), thread and fabric (15%), non-ferrous metals and products (11%) and machinery and vehicles (9%).

COMMUNICATIONS. Inland transportation facilities are highly developed. Railroad mileage is 3,090. Navigable waterways total 998 mi., including the well-developed canal system. Before World War II, Belgium had the second largest river fleet on the Rhine. Highway mileage in 1949 totaled 6,648, mostly improved. The merchant fleet on June 30, 1950, totaled 222 ships (100 tons and over) aggregating 481,656 gross tons, according to *Lloyd's Register*. Sabena, the government-controlled airline,

flew 120,000,000 passenger-miles in 1949 and carried 150,090 passengers.

FINANCE. Recent data are as follows (in billions of francs):

	1949*	1950*	1951*
Revenue	69.4	57.8	58.2
Expenditure	71.6	64.4	63.7

* Budget estimate.

The national debt, consolidated and floating, totaled 246,589,000,000 fr. on Mar. 31, 1951.

NATURAL FEATURES AND RESOURCES; CLIMATE. The northern third of Belgium is a plain extending eastward from the coast of the North Sea. North of the Sambre-Meuse Rivers is a low plateau, varying from 250 to more than 600 feet in height, and to the south lies the Ardennes plateau, rising to a maximum of about 2,300 feet. The shallowness of the North Sea off Belgium precludes the development of good harbors; some of the port advantages of Antwerp, on the Schelde River, are offset by the fact that the approaches to it are through Dutch territory.

The principal mineral is coal; production in 1950 was 27,304,380 metric tons. The Ardennes coalfield, now nearly exhausted, extends southward into France. The Campine field, comparatively new, lies in the northeast. Iron ore, lead and zinc also are mined, principally in the Ardennes. Belgian mining, highly developed, normally employs about 200,000 people.

Forests cover about 20 per cent of Belgium, but their products are relatively unimportant. Fishing is vital in the economy. The 1950 catch was about 53,200 metric tons valued at 422,321,000 fr.

The climate is temperate. Ostend, on the sea, has an average annual temperature of 49° and annual rainfall of 27.5 inches, about like that of Chicago. Baraque Michel, in the Ardennes heights, has an average temperature of 43°, rainfall of 59.5 inches, and considerable snow in the winter.

Belgian Colonial Empire

Country	Area (sq. mi.)	Native pop. (est. 1950)
Belgian Congo (colony)	904,974	11,073,311
Ruanda-Urundi (U. N. trust territory)	20,120	3,808,000*

* 1949.

BELGIAN CONGO—Status: Colony.
Capital: Léopoldville (population 1949: 160,304; Europeans, 8,044).
Governor General: Eugène Jungers.
Foreign trade (1949)*: exports, 10,983,471,000 fr.; imports, 10,320,406,000 fr.; chief exports, copper (25%), cotton, palm oil.
Agricultural exports (1949, in metric tons)*: cotton, 46,790; coffee, 31,445.
Mineral production (1949, in metric tons): copper (smelter), 141,399; tin (ingots), 3,299; cassiterite, 16,084; diamonds (mainly industrial), 10,115,629 carats; gold (refined), 326,290 oz.; uranium.
Forest exports (1949, in metric tons)*: palm oil, 121,766; palm kernels, 80,034; gum copal, 10,721; rubber, 6,780.
*** Including Ruanda-Urundi.**

The mineral-rich Belgian Congo, in central Africa, with a narrow outlet to the Atlantic through the northwestern tip of Portuguese Angola, was acquired Nov. 15, 1908, by the Belgian state from the Belgian king, Leopold II. The latter had backed exploration of the area by the English explorer, H. M. Stanley, and in 1885 had been recognized by the great powers as personal sovereign and proprietor of the Congo Free State, as it was then called. The area is now administered by a governor general responsible to the cabinet minister for the colonies. The governor general has unrestricted executive and legislative powers, and the colony has no representative institutions of its own. During World War II it furnished vital war materials to the Allies. The European population on Jan. 1, 1950, was 52,113, of whom 39,006 were Belgians.

RUANDA-URUNDI—Status: U. N. trust territory, united administratively with the Belgian Congo.
Capital: Usumbura.
Governor General: Eugène Jungers.
Principal products: tin, coffee, gold, cotton, hides.

Ruanda-Urundi, in east Africa, was assigned to Belgium as a mandate by the League of Nations at the end of World War I, before which it was a portion of German East Africa. It is administered under the direction of the governor general of the Belgian Congo by a vice governor general. The area, placed under U. N. trusteeship in Dec., 1946, is largely mountainous, with livestock grazing the principal native activity.

Bhutan (Kingdom)

Area: approx. 18,000 square miles.
Population (est.): 300,000 (mostly Bhotiya).
Density per square mile: 16.7.
Ruler: Maharaja Sir Jig-me Wang-chuk.
Capital: Punakha.
Monetary unit: Indian rupee.
Language: Tibetan dialect.
Religion: Buddhism.

HISTORY. Bhutan is a semi-independent state lying on the southeast slope of the Himalayas, bordered on the north and east by Tibet and on the south and west by the Republic of India. The area is said to have been invaded and settled by Tibetan troops in the 9th century A.D. After almost a century of conflict between the Bhutanese and the British in India, British troops invaded

the country in 1865 and negotiated an agreement under which Britain undertook to pay an annual allowance to Bhutan on condition of good behavior. A treaty signed with India in Aug., 1949, increased this subsidy and placed Bhutan's foreign affairs under Indian control.

Until 1907 Bhutan's government was under the dual control of the clergy and laity, but the country is now ruled by a hereditary maharaja.

The dominant people are the Bhotiyas, who are of Tibetan origin, speak a Tibetan dialect, and profess the same form of Buddhism as is prevalent in Tibet.

ECONOMIC CONDITIONS. The chief crops are rice, corn and millet; the fields, laid out on hillside terraces, are watered by an ingenious system of irrigation. Bhutan is famous for its small though sturdy mountain ponies. The chief industries are metal work, cloth weaving and fine basket and mat work. Trade is insignificant, and much of it is conducted by barter.

NATURAL FEATURES. The whole of Bhutan presents a succession of lofty and rugged mountains running generally from north to south and separated by deep valleys. Mountains in the north reach a height of 24,000 feet. The climate varies according to the topography. There are valuable forest stands ranging from semi-tropical woods on the lowest slopes to coniferous forests on the more temperate slopes to the north.

Bolivia (Republic)

(República Boliviana)

Area: 416,040 square miles.
Population (est. 1949): 3,990,000 (1944: 52% Indian, 28% Mestizo, 13% white, .2% Negro, 6.8% unspecified).
Density per square mile: 9.6.
President: Gen. Hugo Ballivián.
Principal cities (est. 1948): La Paz, 319,600 (de facto capital); Cochabamba, 83,000 (commercial center); Oruro, 50,000 (tin mines); Potosí, 47,000 (mining); Sucre, 35,000 (legal capital).
Monetary unit: Boliviano.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Famous since Spanish colonial days for its mineral wealth, modern Bolivia was once a part of the ancient Incan Empire. After the Spaniards had defeated the Incas during the first part of the 16th century, Bolivia was subjected to the Spanish Viceroyalty of Peru, and its predominantly Indian population was reduced to slavery. During the successive South American revolts against Spain in the early 19th century, Upper Peru (as Bolivia was then called) was a vast battlefield contested by Spanish and patriot troops. The country finally won its independence in 1825; the new republic was named after Simón Bolívar, South America's famed liberator.

Bolivia's political history since independence has been extremely stormy. Since 1825 it has had more than sixty revolutions, seventy presidents and eleven constitutions. No elected president has ever served out his term.

Harassed by internal strife, Bolivia lost great slices of territory to three neighbor nations. Several thousand square miles and its outlet to the Pacific were taken by Chile after a disastrous war in 1879–83. In 1903 a piece of Bolivia's Acre province, rich in rubber, was ceded to Brazil. And in 1938, after a war with Paraguay, Bolivia gave up claim to nearly 100,000 square miles of the Gran Chaco.

Recent years have been typical of Bolivia's turbulent political history, with several illegal seizures of power culminating in a leftist revolution on July 21, 1946, which overthrew the rightist regime of Lt. Col. Gualberto Villarroel, who in Dec., 1943, had ousted the legally elected president, Gen. Enrique Peñaranda. Elections held Jan. 5, 1947, were indecisive; Congress endorsed the slight plurality of Dr. Enrique Hertzog, who took office on March 10, 1947. Continued political and labor unrest and martial law marked Hertzog's administration and that of Mamerto Urriolagoitia, who became president when Hertzog resigned because of illness in Oct., 1949. Elections held May 6, 1951, were again indecisive, although an exiled leftist, Victor Paz Estenssoro, obtained a near majority. Pres. Urriolagoitia turned over the government on May 16 to a military junta which named Gen. Hugo Ballivián as president.

GOVERNMENT. Under the 1938 constitution, Bolivia is a republic, electing by popular vote a president every four years, a 27-member Senate every six years, and a 111-member Chamber of Deputies every four years. The president appoints the 10 members of his cabinet. The Indian majority is virtually disfranchised, and less than 3 per cent of the population voted in the 1947 presidential elections.

Military service is compulsory, with a two-year training period beginning at nineteen and service on reserve until fifty. The army is fixed by law at 15,000, and there are about 12,000 federal police. The air force is being re-organized and trained by U. S. officers.

SOCIAL AND ECONOMIC CONDITIONS. Bolivia has an illiteracy rate estimated in 1948 at over 80 per cent, highest in Latin America. A contributing factor is the high proportion of pure Indian population. In 1944 enrollment at 1,740 primary schools was 144,056, and at 55 intermediate schools,

17,496. There are five universities and several normal schools and educational centers for Indians. The government is reorganizing the curriculum for rural schools.

Mining is the backbone of the economy. Tin, accounting normally for 70 per cent of Bolivian exports, is by far the most important mineral, most of it coming from the plateau regions of Potosí and Oruro. During World War II, Bolivia was the world's largest tin producer.

Mineral production in 1949 was as follows: tin, 34,115 long tons; silver, 6,635,000 ounces; copper, 5,100 metric tons; gold, 32,000 ounces. Antimony, zinc ore, lead, manganese ore, tungsten concentrates, and mercury are also produced; and uranium deposits have been reported. Southern Bolivia is rich in oil, as yet relatively unexploited. Production in 1949 amounted to 678,200 barrels.

The 5,000,000 acres under cultivation produce wheat, rice, sugar, potatoes, cacao, barley, maize, coca (source of cocaine), tobacco and cotton. Production of such basic foodstuffs as wheat and rice, however, is insufficient for domestic needs, and considerable quantities must be imported. Cattle are raised in the more temperate regions of the east and south, sheep in the departments of La Paz and Cochabamba, and llamas, alpacas and vicuñas, important sources of hides, wool and meat, are raised on the plateaus by Indians whose economy is largely dependent upon them. The fur-bearing chinchilla, a native of the colder plateau regions, is also bred.

Manufacturing received considerable impetus during the Chaco War, but the output is insufficient to supply the domestic demand. Almost three-fourths of the manufacturing is carried on in La Paz. Major manufactures in 1947 had a value of about $27,000,000.

Tin and other minerals comprise almost the whole of Bolivia's exports. Since the country is landlocked, foreign trade must pass through free ports in Chile and river ports on the Amazon. Trade statistics for three years follow (in millions of U. S. dollars):

	1947	1948*	1949*
Exports	81.2	112.8	107.1
Imports	59.6	68.7	78.4

* Partially estimated.

Chief exports in 1949 were tin (68%) and lead (9%). The U. S. was the principal supplier (56%). Leading customers were the U. S. (45%) and Britain (25%).

From its lowland tropical forests, Bolivia gets rubber, quinine bark, almonds and brazil nuts, dyewoods, mahogany, quebracho and other hardwoods. Rubber exports in 1949 were about 2,000 short tons.

Railway mileage totals 1,454, all in western Bolivia; the principal lines connect La Paz with the Chilean ports of Arica and Antofagasta. Highway mileage in 1949 was 15,420, most of it unimproved. Airlines play an important role in Bolivian transportation: national airlines, including the Lloyd Aéreo Boliviano, flew 1,300,000 air miles in 1947, and Pan American Airways links the country with the rest of the Americas. In the lowlands, thousands of miles of navigable streams are the chief means of transportation.

Bolivia's 1950 budget balanced receipts and expenditures at 2,783,000,000 bolivianos. On Dec. 31, 1947, the total public debt was 6,819,000,000 bolivianos, including arrears of interest.

NATURAL FEATURES AND CLIMATE. Landlocked Bolivia is a low alluvial plain throughout 60 per cent of its area toward the east, drained by the Amazon and Plata river systems. The western part, enclosed by two chains of the Andes, is a great plateau—the Altiplano—measuring 500 by 80 miles at an average altitude of 12,000 feet. More than 80 per cent of the population lives on the plateau, which also contains La Paz, the highest capital city in the world. Lake Titicaca, half the size of Lake Ontario, is one of the highest large lakes in the world, at an altitude of 12,507 feet. Islands in the lake hold ruins of the ancient Incan civilization.

The climate varies from the humid heat of the equatorial lowlands in the east to the arctic cold of the Andean peaks. In the lowlands, the average temperature is about 77°, with no great departures; rainfall is heavy throughout the year. At higher elevations in the west (to 11,000 ft.) the climate is temperate, with occasional winter frost. In the great central plateau, the weather is always cool. In La Paz it averages about 50.4°.

Brazil (Republic)

(Estados Unidos do Brasil)

Area: 3,291,416 square miles.
Population (census 1950*): 52,645,479 (1945: white, 63%; Mestizo, 21%; Negro, 14%; Indian and other, 2%).
Density per square mile: 15.9.
President: Getulio D. Vargas.
Principal cities (census 1950*): Rio de Janeiro, 2,413,152 (capital and chief port); São Paulo, 2,227,512 (coffee); Recife (Pernambuco), 534,468 (seaport); Salvador (Baía), 424,142 (seaport); Porto Alegre, 401,213 (seaport); Belo Horizonte, 360,313 (mining); Fortaleza (Ceará), 280,084 (seaport).
Monetary unit: Cruzeiro.
Language: Portuguese.
Religion: Roman Catholic, 95%.

* Provisional figures.

HISTORY. Brazil, the only Latin American nation deriving its culture and language from Portugal, is by far the largest country in South America, covering nearly half the continent. In the Western Hemisphere it is second to Canada. In the world, it ranks after the U.S.S.R., China and Canada.

Brazil was discovered in 1500 by the Portuguese admiral, Pedro Alvares Cabral. Portuguese colonization efforts began in 1532 and Brazil became a royal colony seventeen years later. The later attempts of France and Holland to colonize Brazil were defeated by the Portuguese.

During the Napoleonic wars, the prince regent of Portugal (later King John VI) fled his country in advance of the French armies, and set up his royal court at Rio de Janeiro in 1808. John was drawn home by a revolution in 1820 and the Brazilians, after holding the seat of Portuguese government, rebelled at resuming colonial status and declared their independence in 1822 under Pedro, son of John VI. Harassed by trouble with his parliament, Pedro I abdicated in 1831 in favor of his five-year-old son, who became emperor in 1840 as Pedro II. He proved to be an enlightened and popular monarch.

Despite his good works, however, Pedro II was forced to abdicate in 1889 following a military revolt, after which a republic was set up. Until 1893 Brazil was under two military dictators, Marshal Deodoro da Fonseca and Marshal Floriano Peixoto. After a revolt against the latter in 1893, Brazil returned gradually to stability under a succession of five civilian presidents —Prudente de Moraes Barros, 1894–98; Manuel Ferras de Campos Salles, 1898–1902; Francisco de Paula Rodrigues Alves, 1902–06; Affonso Penna, 1906–09, who died in office; and Nilo Pecanha, 1909–10.

The president during World War I, Wenceslau Braz, co-operated with the Allies and declared war on Germany Oct. 26, 1917. Reckless expenditure marked the term of the next chief executive, Epitacio da Silva Pessoa, 1919–22, while the presidency of Arthur Bernardes, 1922–26, was bedeviled by financial difficulties and army dissension. His successor, Washington Luiz Pereira da Souza, 1926–30, had to cope with the world depression and was overthrown by a revolutionary group under Getulio Vargas, who took over as provisional president.

Vargas' new constitution in 1934 sharply curtailed state's rights and emphasized a nationalistic policy. In 1937 Vargas seized absolute power, setting up another constitution which extended his term of office indefinitely. In World War II, Brazil co-operated well with the United Nations. Allied air bases were set up in Brazil, Brazilian naval forces patrolled the South Atlantic, and a Brazilian expeditionary force fought in Italy after the nation's declaration of war against the Axis in Aug., 1942.

National fear that Vargas would never fulfill his promise of free elections led to his overthrow on Oct. 29, 1945, and the transfer of his powers to Chief Justice José Linhares. In the subsequent elections, on Dec. 2, 1945, victory went to the Vargas candidate—Gen. Eurico Gaspar Dutra, inaugurated as president on Jan. 31, 1946.

Vargas returned to the political arena in 1950 and was elected president Oct. 3 as candidate of the left-of-center Labor party. He took office Jan. 31, 1951.

GOVERNMENT. Under the Constitution of Sept. 18, 1946, Brazil is a federation of twenty states, five territories and one federal district. The president is popularly elected for a five-year term and may not succeed himself. The national Congress is composed of two houses—the Senate, whose members serve for eight-year terms, and the Chamber of Deputies, elected for four-year terms. Members of Congress are elected by equal, direct, compulsory and secret suffrage under a system of proportional representation.

Among the important innovations of the 1946 Constitution are articles empowering the federal government to create state-owned monopolies in the public interest and making the exploitation of mines and subsoil resources dependent on federal authorization. The Constitution also authorizes the government to intervene in labor disputes but recognizes the general principle of freedom of association and the right to strike. Labor courts handle labor-management disputes.

The twenty states, with popularly elected legislatures and governors, and their own constitutions, have considerable autonomy, but during the first Vargas regime they suffered from federal intervention.

DEFENSE. Military service is compulsory beginning at twenty-one, with an initial training period of one year and service on reserve until forty-five. The permanent army of 112,300 men and 258,000 reserves in 1940 was greatly expanded in World War II. Its strength in 1948 was estimated at 118,000, including 38,000 federal police.

The army received a considerable amount of U. S. lend-lease military goods during World War II. The air force, under a separate Ministry of Aviation since 1941, expanded during the war and took an active part in the Italian campaign.

The navy on Jan. 1, 1951, had in active service one old battleship, 9 fleet destroyers, 8 escort destroyers, 4 submarines and smaller craft. Two U. S. light cruisers were added to the fleet in 1951.

EDUCATION. Education is free and compulsory; under the 1946 constitution it is given in Portuguese only. According to the 1940 census, 43.6 per cent of the population 18 years of age and over could read and write. In 1950 there were 60,000 primary schools with 4,500,000 pupils, about 1,500 secondary schools with 300,000 students and about 2,700 vocational, commercial and professional schools with 200,000 students. There are 10 universities, of which 3 are private (Catholic), 6 state and one federal (University of Brazil at Rio de Janeiro).

AGRICULTURE. Agriculture is the basis of Brazil's economy, but only 4 per cent of its area is under cultivation, the rest being grazing, forest, or non-productive land. Brazil leads the world in production of coffee and castor beans, and ranks second in cacao. Production and export of both coffee and cacao are government-controlled. The most important agricultural products in 1949 were rice, 2,647,956 metric tons; cotton, 401,742 tons; wheat, 471,907 tons; cacao, 128,545 tons; sugar cane, 30,041,208 tons (raw sugar, 1,732,000 tons); and coffee, 1,031,501 tons. Other crops include tobacco, maize, manioca, fruits, bananas and coconuts. The total value of agricultural production in 1949 was about 38,819,355,000 cruzeiros.

Livestock is raised nearly everywhere, with the great centers in the central and southern states. In 1949 there were 50,178,000 cattle, 23,881,000 hogs and 13,803,000 sheep.

MANUFACTURING. Manufacturing is still primarily for domestic consumption, but industrialization is progressing rapidly, although hampered by equipment shortages.

The state of São Paulo is by far the leading industrial area. Leading products are foodstuffs, textiles, chemicals and pharmaceutical products, metallurgical products, clothing, leather, glass and porcelain, paper and rubber articles. The most important single industry is cotton weaving, employing approximately 25 per cent of all industrial labor.

Brazil's first steel plant, at Volta Redonda, began production on June 23, 1946. Production of pig iron and ferro-alloys in 1950 was 729,033 metric tons and steel, 779,466 tons.

Foreign trade, largely hemispheric, has been retarded by scarcity of dollar exchange. Trade statistics for 3 years follow (in billions of cruzeiros):

	1948	1949	1950
Exports	21.70	20.15	24.91
Imports	20.98	20.65	20.31

In 1950, Brazil's chief customers were the U. S. (55%), Britain (8%) and Argentina (6%). Leading suppliers were the U. S. (34%), Britain (12%) and Argentina (10%). Chief exports in 1950 were coffee (64%), cotton (7.7%) and cacao (5.8%). Leading imports include machinery, foodstuffs (largely Argentine wheat), vehicles and petroleum products.

MINERAL RESOURCES. Brazil's vast mineral resources are among her least developed assets. The most important are coal (estimated reserves of 5,000,000,000 tons; estimated 1950 production, 1,983,063 metric tons) and iron ore, found chiefly in Minas Gerais (1949 output, 1,887,777 metric tons). Other important minerals, with estimated 1948 production, are manganese ore, 141,300 tons; gold, 157,000 troy ounces; diamonds, about 250,000 carats; tungsten, 1,144 tons; silver; bauxite; quartz crystals; uranium; chrome ore; graphite; petroleum and titanium.

FORESTS AND FISHERIES. More than half of Brazil's area is forested, but the extensive resources are relatively undeveloped. The largest single forest commodities are timber, chiefly pine from the southern states, and the wax of the carnauba palm, used for insulation and phonograph records and produced commercially only in Brazil (exports, 1949: 11,110 metric tons). Rubber production, mostly in the Amazon basin, was estimated in 1950 at 20,260 metric tons, but it has not developed as extensively as was once expected. Other forest products are Brazil nuts, yerba maté (Paraguay tea), medicinal plants, and vegetable oils. There are vast fishing banks and grounds in the rivers and along the coast, with some 2,500 known species of fish.

COMMUNICATIONS. Coastwise and river steamers are the main links between north and south Brazil, especially within the Amazon basin where inland waterways are the only means of land communication. Navigable waterways total 26,713 miles. Coastwise traffic is restricted to Brazilian ships, but the Amazon is open to all ships.

Railway mileage in 1951 was about 23,000, mostly located south of Recife. Railway development has been hampered by natural obstacles, especially by coastal mountains, but extensive government and private building is under way. Highways total 38,000 miles, and common roads about 124,000 miles. At the beginning of 1949, Brazil was served by 8 foreign and 23 domestic airlines; mileage flown by all airlines in 1949 totaled 50,239,000.

FINANCE. Recent data are as follows (in billions of cruzeiros):

	1949	1950*	1951*
Revenue	17.917	18.800	20.500
Expenditure	20.727	22.300	22.800

* Budget estimate.

TOPOGRAPHY. Brazil covers about three-sevenths of South America, extends 2,965

miles north-south, 2,691 miles east-west, and borders every South American state except Chile and Ecuador. Its area would more than blanket that of the U. S.

There are two principal physical divisions of the Brazilian surface. The lowlands are made up of the heavily forested tropical river basin of the Amazon, the world's largest drainage area; and the less heavily forested basin of the Plata to the south. The intermediate highland is a vast plateau, 1,000 to 3,000 feet above sea level, traversed by several low mountain ranges, and extending almost from the seacoast to the Bolivian frontier and south to the plains of Rio Grande do Sul. The Central plateau comprises more than half of the country and, with the narrow coastal plain, supports 90 per cent of the population.

More than a third of Brazil is drained by the Amazon and its more than 200 tributaries. The Amazon is navigable for ocean steamers to Iquitos, Peru, 2,300 miles upstream. Southern Brazil is drained by the Plata system—the Paraguay, Uruguay and Paraná Rivers. The most important stream entirely within Brazil is the São Francisco, navigable for a thousand miles but broken near its mouth by the 260-foot Paulo Affonso Falls, with estimated potential 1,000,000 horsepower.

CLIMATE. Brazil is almost wholly in the torrid zone, but such factors as altitude, prevailing winds, rainfall and distance from the sea combine to vary the climate from tropical to temperate. Manaus on the Amazon has an average temperature of 80.9° and annual rainfall of 71.65 inches. The corresponding figures for Rio de Janeiro are 72.5° and 44 inches. February is usually the warmest month in Rio de Janeiro. In much of the Amazon basin, rainfall averages 80 inches.

United Kingdom of Great Britain and Northern Ireland

Area: 93,371 square miles (excluding Channel Islands and Isle of Man).
Population (census 1951*): 50,210,472 (English, Scotch, Welsh, Irish).
Density per square mile: 537.8.*
Ruler: King George VI.
Prime Minister: Winston Churchill.
Principal cities (census 1951*): London (Greater), 8,346,000 (capital); Birmingham, 1,112,000 (iron and steel); Glasgow, 1,090,000 (seaport; shipbuilding); Liverpool, 790,000 (seaport); Manchester, 703,000 (textiles); Sheffield, 513,000 (steel, cutlery); Leeds, 505,000 (clothing); Edinburgh, 467,000 (capital, Scotland).
Monetary unit: Pound sterling.
Languages: English, Welsh, Gaelic.
Religion: Church of England (established church); Church of Wales (disestablished); Church of Scotland (established church—Presbyterian); Church of Ireland (disestablished); Roman Catholic; Methodist; Congregational; Baptist; Jewish.

* Provisional figures.

HISTORY. Roman invasions of the 1st century B.C. brought Britain into contact with the continent. When the Roman legions withdrew in the 4th century A.D., Britain fell easy prey to the invading hordes of Angles, Saxons and Jutes from Scandinavia and the Low Countries. Seven large kingdoms were established, and the original Britons were forced into Wales and Scotland. It was not until the 11th century that the country finally became united under the Danish King Canute. Following the death of Edward the Confessor (1066), a dispute as to the succession arose, and William Duke of Normandy invaded England, defeating the Saxon noble, Harold II, at the Battle of Hastings (1066). The Norman conquest was accompanied by the introduction of Norman law and feudalism, changing the customs of England.

The reign of Henry II (1154–89), first of the Plantagenets, saw an increasing centralization of royal power at the expense of the nobles, but in 1215 John (1199–1216) was forced to sign the Magna Carta, which awarded the people, especially the nobles, certain basic rights. Edward I (1272–1307) continued the conquest of Ireland, reduced Wales to subjection, and made some gains in Scotland. In 1314, however, English forces led by Edward II were ousted from Scotland after the battle of Bannockburn. The late 13th and early 14th centuries saw the development of a separate House of Commons with tax-raising powers.

Edward III's claim to the throne of France led to the Hundred Years' War (1338–1453), which ended with the loss of almost all the large English territory in France. In England the great poverty and discontent caused by the war was intensified by the Black Death, a plague which reduced the population by about one-third. The Wars of the Roses (1455–85), a struggle for the throne between the House of York and the House of Lancaster, were ended by the victory of Henry Tudor (Henry VII) at Bosworth Field (1485).

During the reign of Henry VIII (1509–47), the Church in England asserted its independence from the Roman Catholic Church. Under Edward VI and Mary, the two extremes of religious fanaticism were reached and it remained for Henry's daughter, Elizabeth (1558–1603), to settle

THE COMMONWEALTH OF NATIONS

Europe

Political subdivision	Area (sq. mi.)	Population
United Kingdom	93,371	50,210,472[1]
Channel Islands	75	102,770[1]
Isle of Man	221	55,213[1]
Gibraltar	2	25,000[9]
Malta	122	312,447[0]

Africa

Anglo-Egyptian Sudan	967,500	8,038,000[9]
Basutoland	11,716	636,000[8]
Bechuanaland	275,000	300,000[9]
Gambia	4,074	268,038[0]
Gold Coast (including Togoland)	91,843	4,127,000[9]
Kenya	224,960	5,454,000[9]
Mauritius and dependencies	807	475,386[0]
Nigeria (including British Cameroons)	372,674	24,081,000[9]
Northern Rhodesia	290,323	1,888,100[0]
Nyasaland	47,949	2,349,194[0]
St. Helena and dependencies	126	5,040[8]
Seychelles	156	35,000[9]
Sierra Leone	27,925	2,095,000[9]
Somaliland	67,936	700,000[9]
Southern Rhodesia	150,333	2,092,800[0]
South-West Africa	317,725	352,075[6]
Swaziland	6,705	194,000[9]
Tanganyika Territory	362,688	7,514,000[9]
Uganda	93,981	5,008,000[9]
Union of South Africa	472,550	12,320,000[0]
Zanzibar and Pemba	1,020	268,000[9]

America

Bahamas	4,404	79,664[0]
Barbados	166	211,682[0]
Bermudas	19	36,771[9]
British Guiana	89,480	425,156[0]
British Honduras	8,598	67,430[0]
Canada	3,619,616	13,845,000[0]
Falkland Islands and dependencies	4,618	3,641[8]
Jamaica and dependencies	4,722	1,409,593[0]

America—(cont.)

Political subdivision	Area (sq. mi.)	Population
Leeward Islands	423	110,500[9]
Trinidad and Tobago	1,978	635,843[0]
Windward Islands	821	268,000[9]

Asia

Aden colony	80	82,000[9]
Aden protectorate	112,000	650,000[9]
Bahrein Islands	213	110,000[9]
Borneo:		
Colony of North Borneo	29,417	351,000[1]
Brunei	2,226	43,000[9]
Sarawak	50,000	560,000[9]
Ceylon	25,332	7,500,000[0]
Cyprus	3,572	487,626[0]
Hong Kong	391	2,060,000[0]
India, Republic of	1,220,099	356,891,624[1]
Malaya:		
Malayan Federation	50,680	5,226,549[0]
Singapore and dependencies	282	1,018,419[0]
Pakistan	337,524	75,687,000[1]

Oceania

Australia, Commonwealth of	2,974,581	8,185,539[0]
Fiji	7,040	293,764[0]
Gilbert and Ellice Islands	312	35,298[7]
Nauru	8	2,873[8]
New Guinea, Territory of	93,000	1,008,000[9]
New Hebrides	4,633	50,000[8]
New Zealand	103,416	1,940,738[9]
Norfolk Island	13	938[7]
Papua (British New Guinea)	90,540	304,000[9]
Solomon Islands	11,458	94,865[7]
Tonga (Friendly Islands)	250	48,247[0]
Western Samoa	1,133	81,697[1]

(Note: Each population figure is followed by superior number denoting the year of estimate: [1] for 1951, [0] for 1950, [9] for 1949, [8] for 1948, [7] for 1947, etc.)

the Church of England on a moderate basis. In 1588 the Spanish Armada, a fleet sent out by Catholic King Philip II of Spain, was defeated by the English and destroyed during a storm. It was during Elizabeth's reign that England became a world power.

Elizabeth's heir was of the house of Stuart—James VI of Scotland—who joined the two crowns as James I (1603–25). The Stuart kings incurred large debts and were forced either to depend on Parliament for taxes or to raise money by illegal means. In 1642 war broke out between Charles I and a large portion of the Parliament; Charles was defeated and executed in 1649, and the monarchy was then abolished. The Puritan Commonwealth endured for ten years, but after the death (1658) of Oliver Cromwell, the Lord Protector, the government fell to pieces and Charles II was restored to the throne in 1660. The struggle between the King and Parliament continued, but Charles II knew when to compromise. His brother James II (1685–88) possessed none of his ability and was ousted by the Revolution of 1688, which confirmed the predominant position of

Parliament. James' daughter, Mary, and her husband, William of Orange, now ruled jointly.

The reign of Queen Anne (1702–14) was marked by the Duke of Marlborough's victories over France at Blenheim, Oudenarde and Malplaquet in the War of the Spanish Succession. England and Scotland meanwhile were joined together by the Act of Union (1707). Upon the death of Anne, the distant claims of the elector of Hanover were recognized, and he became King of England as George I.

The 18th century was a period of gradual growth and change. At home the unwillingness of the Hanoverian kings to rule resulted in the formation by the King's ministers of a cabinet, headed by a prime minister, which directed all public business. Abroad the constant wars with France resulted in expansion of the British Empire all over the globe, particularly in North America and India. This imperial growth was checked by the revolt of the American colonies (1775–81).

The age-long struggle with France broke out again in 1793, and during the lengthy Napoleonic Wars, which ended at Waterloo (1815), England was pitted at one time against almost all of Europe.

The Victorian era, named after Queen Victoria (1837–1901), saw the growth of a democratic system of government which had begun with the Reform Bill of 1832. The two important wars in Victoria's reign were the Crimean War against Russia (1853–56) and the Boer War (1899–1902). The latter was the result of England's imperialist expansion in South Africa and was accompanied by enormous extension of her sway throughout Africa.

The reign of Edward VII (1901–10) was marked by increasing uneasiness at home and abroad. Within four years after the accession of George V (1910), England entered World War I when Germany invaded Belgium. The nation was led by coalition cabinets headed first by Herbert Asquith and then (Dec., 1916) by the Welsh statesman, David Lloyd George. The years after the war were marked by labor unrest which culminated in the general strike of 1926. A Labour ministry formed early in 1924 by Ramsay MacDonald fell in October of that year. In 1929 a second Labour government was formed, but the world economic depression forced a change in 1931, and a national government was formed composed chiefly of Conservative members, although MacDonald remained prime minister until 1935. King Edward VIII succeeded to the throne in 1936 on his father's death but abdicated eleven months later (in order to marry an American, Wallis Warfield Simpson, whose second divorce was then pending) in favor of his brother, who became King George VI.

The efforts of Prime Minister Neville Chamberlain to meet by peaceful means the rising tide of Nazism in Germany failed with the German invasion of Poland (Sept. 1, 1939), which was followed by England's entry into World War II (Sept. 3, 1939). Serious Allied reverses in the spring of 1940 led to Chamberlain's resignation and the formation of another coalition war cabinet by Conservative leader Winston Churchill, who led England through most of World War II. Churchill resigned as the coalition leader shortly after V-E Day, but then formed a "caretaker" government which remained in office until after the parliamentary elections of July 5, 1945, in which the Labour party won an overwhelming victory. The government formed by Clement R. Attlee on July 26 embarked on a moderate socialistic program.

Internationally, the Attlee government continued Britain's close co-operation with the United States through the North Atlantic Treaty and in the Korean war, at the same time solidifying its position in Western Europe in opposition to the U.S.S.R. Despite its near defeat in the parliamentary elections of Feb. 1950, the Labour regime continued in power, helped by high industrial production and an improved balance of payments with the dollar area.

AREA AND POPULATION OF MAJOR SUBDIVISIONS*

Subdivision	Area, sq. mi.	Population, census 1951†
England	50,870	43,744,924
Wales	7,469	
Scotland	29,794	5,095,969
Northern Ireland	5,238	1,369,579

* Not including Channel Islands and Isle of Man.
† Provisional figures.

RULER. King George VI, born December 14, 1895, second son of King George V and Queen Mary, succeeded to the throne on the abdication of his brother, King Edward VIII, December 11, 1936; married April 26, 1923, to Lady Elizabeth Bowes-Lyon (born Aug. 4, 1900). Their children are: (1) Princess Elizabeth Alexandra Mary (heiress presumptive), born April 21, 1926; and (2) Princess Margaret Rose, born Aug. 21, 1930. Princess Elizabeth was married Nov. 20, 1947, to Prince Philip, Duke of Edinburgh, born June 21, 1921; their children are Prince Charles of Edinburgh, born Nov. 14, 1948, and Princess Anne, born Aug. 15, 1950. The King's living brothers are Prince Edward Albert, Duke of Windsor (formerly King Edward VIII), born June 23, 1894, and Prince Henry William, Duke of Gloucester, born March 31, 1900.

NATIONAL GOVERNMENT. The United Kingdom is a constitutional monarchy, with a king and a Parliament consisting of two houses: the House of Lords with about

Rulers of England

Name	Born	Ruled
Anglo-Saxons[1]		
Alfred the Great	849	871– 899
Edward the Elder	c. 870	c. 899– 925
Athelstan	895	925– 939
Edmund I	921	939– 946
Edred	c. 925	946– 955
Edwy the Fair	c. 943	955– 959
Edgar the Peaceful	943	959– 975
Edward the Martyr	c. 962	975– 979
Ethelred the Redeless	968	979–1016
Edmund II Ironside	c. 993	1016–1016
Danes		
Canute	995	1016–1035
Harold I Harefoot	c. 1016	1035–1040
Hardicanute	c. 1018	1040–1042
Saxons		
Edward the Confessor	c. 1004	1042–1066
Harold II	c. 1020	1066–1066
Normans		
William I the Conqueror	1027	1066–1087
William II Rufus	c. 1056	1087–1100
Henry I	1068	1100–1135
Stephen	c. 1100	1135–1154
Plantagenets		
Henry II	1133	1154–1189
Richard I Coeur de Lion	1157	1189–1199
John	1167	1199–1216
Henry III	1207	1216–1272
Edward I Longshanks	1239	1272–1307
Edward II	1284	1307–1327
Edward III	1312	1327–1377
Richard II	1367	1377–1399
House of Lancaster		
Henry IV	1366	1399–1413
Henry V	1387	1413–1422
Henry VI	1421	1422–1461 & 1470–1471
House of York		
Edward IV	1442	1461–1470 & 1471–1483
Edward V	1470	1483–1483
Richard III	1452	1483–1485
House of Tudor		
Henry VII	1457	1485–1509
Henry VIII	1491	1509–1547
Edward VI	1537	1547–1553
Jane (Lady Jane Grey)	1537	1553–1553
Mary I	1516	1553–1558
Elizabeth	1533	1558–1603
House of Stuart		
James I[2]	1566	1603–1625
Charles I	1600	1625–1649
Commonwealth		
Council of State	——	1649–1653
Oliver Cromwell	1599	1653–1658
Richard Cromwell	1626	1658–1659
House of Stuart Restored		
Charles II	1630	1660–1685
James II	1633	1685–1688
William III[3]	1650	1689–1702
Mary II[3]	1662	1689–1694
Anne	1665	1702–1714
House of Hanover		
George I	1660	1714–1727
George II	1683	1727–1760
George III	1738	1760–1820
George IV	1762	1820–1830
William IV	1765	1830–1837
Victoria	1819	1837–1901
House of Saxe-Coburg		
Edward VII	1841	1901–1910
House of Windsor		
George V	1865	1910–1936
Edward VIII	1894	1936–1936
George VI	1895	1936–

[1] Dates for Anglo-Saxon kings are still subjects of controversy.
[2] Ruled in Scotland as James VI (1567–1625).
[3] Joint rulers (1689–1694).

750 hereditary peers, 26 spiritual peers, 16 Scottish representative peers, a number of Irish representative peers (vacancies are no longer filled), and a few life peers who have held high judicial office; and the House of Commons, numbering since 1950 625 members elected by practically universal suffrage. Supreme legislative power is vested in Parliament, which holds office for five years unless sooner dissolved. The executive power of the Crown is exercised by the Cabinet, headed by the prime minister. The latter, normally the head of the party commanding a majority in the House of Commons, is appointed by the sovereign, with whose consent he in turn appoints the rest of the Cabinet. All ministers must be members of one or the other house of Parliament; they are individually and collectively responsible to the Crown, the prime minister and Parliament. The Cabinet proposes bills and arranges the business of Parliament but it depends entirely on the votes of confidence in Commons. By an act passed in 1911, the lords cannot hold up "money" bills, but they can delay other bills for a period of two years.

By the Act of Union (1707) the Scottish parliament was assimilated with that of England, and Scotland is now represented in Commons by 71 members. The Secre-

tary of State for Scotland, a member of the Cabinet, is responsible for the administration of Scottish affairs.

Parliamentary elections held in Feb., 1950 returned 315 Labour party, 298 Conservatives, 9 Liberals, 2 Irish nationalists and 1 non-party (the speaker). Labour party candidates received 13,295,736 votes, Independent Labour 4,112, Labour Independent groups 26,014; Conservative and Ulster Unionist 11,518,360, Liberals 2,621,489, Conservative and Liberal 124,642, Conservative and National Liberal 407,326, Liberal and Conservative 60,830, Communist 91,815, National Liberal 40,287, independents and others 65,033.

The members of the Cabinet (July 1951) were Clement R. Attlee (Prime Minister, First Lord of the Treasury), Herbert Morrison (Secretary of State for Foreign Affairs), Viscount Addison (Lord President of the Council), Hugh Gaitskell (Chancellor of the Exchequer), Hugh Dalton (Minister of Local Government and Planning), Richard Stokes (Lord Privy Seal), Viscount Alexander (Chancellor of the Duchy of Lancaster), Viscount Jowitt (Lord Chancellor), Sir Hartley Shawcross (President of the Board of Trade), James Chuter Ede (Secretary of State for the Home Department), Emanuel Shinwell (Minister of Defense), Alfred Robens (Minister of Labour and National Service), Thomas Williams (Minister of Agriculture and Fisheries), George Tomlinson (Minister of Education), James Griffiths (Secretary of State for the Colonies), Hector McNeil (Secretary of State for Scotland), Patrick Gordon-Walker (Secretary of State for Commonwealth Relations).

(For Special Election held Oct. 25, 1951, see INDEX under *Great Britain, Election.*)

LOCAL GOVERNMENT. England and Wales are divided into 62 administrative counties, including the county of London, and 83 county boroughs. The counties are administered by the justices and by popularly elected county councils. All incorporated towns are administered by a municipal corporation consisting of the mayor, aldermen and burgesses. Local government in Scotland is comparable to that in England and Wales.

JUDICIARY. The ultimate British court of appeal is the House of Lords; the final court of appeal for certain of the Dominions is the Judicial Committee of the Privy Council. Below the House of Lords on the civil side is the High Court of Judicature, divided into two parts, the Court of Appeal, and the High Court of Justice. On the criminal side is the Court of Criminal Appeal, which is the court of last resort barring the rare allowance of an appeal to the Lords. Actually these superior courts hear only a small fraction of the cases, and most of the trials are held in a complicated system of inferior courts, exercising original jurisdiction. The Lord Chancellor, Lord Chief Justice, Lords of Appeal in Ordinary (law members of the House of Lords), and Lord Justices of Appeal are appointed by the Prime Minister.

DEFENSE. Compulsory military service, introduced in May, 1939, is still in effect, and will continue until 1954 under the terms of National Service acts since passed. An act passed in 1950 makes 2 years' national service compulsory for men between 18 and 26. The armed forces are comprised of three separate services—the Army, the Royal Navy and the Royal Air Force. The Prime Minister retains supreme responsibility for defense, but the Minister of Defense has coordinating and executive duties.

Service ministers are no longer Cabinet members but continue to be members of the Defense Committee headed by the Prime Minister with the Minister of Defense as deputy chairman; this committee is responsible to the Cabinet both for the review of current strategy and for coordinating departmental action in preparation for war.

Military-budget estimates for the fiscal year 1951–52 follow:

	Estimate	Strength*
Navy	£278,500,000	143,000
Army	416,800,000	527,000
Air	328,750,000	270,000

* Maximum during period.

Control of the land forces is exercised by the Army Council, headed by the Secretary of State for War. Its members include the Chief of the Imperial General Staff, the Adjutant General and Quartermaster General.

The Royal Navy is controlled by the Board of Admiralty, headed by the First Lord of the Admiralty, who is responsible to Parliament. Other members include the First Sea Lord and Chief of Naval Staff. In Dec. 1950, the Royal Navy had in active service and in reserve 6 fleet carriers, 6 light aircraft carriers, 1 escort carrier, 5 battleships, 25 cruisers, 106 destroyers, 57 submarines, 2 coast-defense ships and 162 frigates and destroyer escorts. Nine fleet carriers, 3 cruisers and several destroyers were under construction.

Naval losses during World War II totaled 2,831 vessels, including 3 battleships, 2 battle cruisers, 5 fleet carriers, 3 auxiliary carriers, 23 cruisers, 139 destroyers and 76 submarines.

Control of the Royal Air Force is vested in an Air Council analogous to the Army Council and headed by the Secretary of State for Air. The Fleet Air Arm was transferred to the Royal Navy in 1937. The R.A.F. had approximately 6,000 planes in service in 1949–50.

The total strength of the armed forces on Aug. 31, 1939, was 681,000. Between that date and June 30, 1945, another 5,215,000 men were inducted. Of the total of 5,896,000, 923,000 served in the Royal Navy, 3,788,000 in the Army and 1,185,000 in the Royal Air Force. The Women's Auxiliary Forces added 619,000 to their 1939 strength of 21,000.

Research and development in the field of atomic energy and weapons is the responsibility of the Ministry of Supply.

EDUCATION. The school system in England and Wales has undergone considerable change since enactment of the Education Act of 1944. This measure makes primary and secondary training available for all children at public expense, with the secondary stage starting at the age of 11. The school-leaving age was raised from 14 to 15 on April 1, 1947. Statistics for the school year 1948–49 are as follows:

England and Wales: primary and secondary schools 27,881, pupils 5,528,776; special schools 577, pupils 45,180. Scotland: primary and secondary schools 3,139, pupils 779,512.

In 1947–48, the 12 English universities and 6 university colleges had 56,315 students, the University of Wales, 4,654 and the 4 Scottish universities and one university college 15,795.

AGRICULTURE. Agriculture remains one of Britain's chief industries, employing about 1,000,000 persons. In 1950, land under cultivation in the United Kingdom amounted to 18,342,000 acres; permanent grassland totaled 12,779,000 acres.

In Scotland more than two-thirds of the land devoted to agriculture is uncultivated rough grazings, while over two-thirds of the cultivated area is arable land; in England and Wales three-fifths of the cultivated land is under permanent grass and only one-sixth of the total agricultural land is rough grazings.

LEADING AGRICULTURAL PRODUCTS
(in thousands)

	1949		1950	
	Acres	Long tons	Acres	Long tons*
Wheat	1,963	2,204	2,476	2,520
Barley	2,060	2,129	1,779	1,595
Oats	3,252	2,995	3,105	2,617
Sugar beets	421	3,962	429	5,049
Potatoes	1,308	9,035	1,235	9,637

* Provisional.

Livestock (June 30, 1950) included 10,607,000 cattle, 20,408,000 sheep, 2,976,000 hogs and 95,986,000 poultry. Cattle occupy a predominant position in British agriculture, accounting for about 40 per cent of the total farm output. Production of cheese (1950) was 56,000 long tons; butter (including farmhouse butter), 23,000; beef and veal, 592,000; mutton and lamb, 147,100; pork, bacon and ham (commercial), 247,400; wool, 36,200.

INDUSTRY. Great Britain is second only to the United States among the industrial nations of the world. The most important manufacture is heavy goods such as machinery, tools, bridges and locomotives; industry is concentrated in the north and Midlands of England. Sheffield is the center of the steel industry, while the china industry is concentrated in the Midlands. The cotton industry is centered in Lancashire; Liverpool, Manchester, Oldham, Preston and Bolton are the main manufacturing towns. The wool industry, England's oldest large trade, is located just east of the cotton towns, at Leeds, Bradford and Hull in Yorkshire. An important industrial region is the central Lowlands of Scotland, where woolens, silks, linens, cottons, lace, glass, paper, steel and pig iron are produced. Important shipyards are located along the coast. The 278 vessels of 1,314,535 gross tons launched in 1950 represented about 40 per cent of the world total. On Mar. 31, 1951, 337 vessels of 2,072,723 tons were under construction in the United Kingdom. Steel production in 1950 was 16,292,700 long tons; that of pig iron, 9,632,900 tons. The iron and steel industry passed into public ownership on Feb. 15, 1951.

Britain's last industrial census was taken in 1935, when the total value of manufactured products was $13,907,300,000. The principal industries, in order of value of output in that year, were as follows: food, beverages and tobacco; engineering and transportation; textiles; metals; wood and paper products; chemicals; clothing. In Apr., 1948, there were 51,050 industrial establishments having more than 10 employees.

TRADE. The United Kingdom's economic prosperity is dependent on its foreign trade, and the nation has made great efforts in the postwar years to build up its volume of exports.

OVERSEAS TRADE
(Value in millions of pounds sterling)

	Imports	Exports	Re-exports
1947	1,794.5	1,138.2	59.8
1948	2,078.0	1,581.8	64.7
1949	2,274.1	1,786.1	58.0
1950*	2,602.9	2,170.1	85.0
1951†	1,856.1	1,240.3	64.5

* Provisional. † First six months.

LEADING EXPORTS AND IMPORTS
(in millions of pounds sterling)

Exports	1949	1950*
Vehicles, ships and aircraft	314.7	407.1
Machinery	278.7	316.9
Cotton yarns and manufactures	159.1	153.4

	1949	1950*
Iron and steel and manufactures	126.3	156.1
Woolen and worsted yarns and manufactures	104.2	140.5
Imports		
Oilseeds and nuts	171.4	210.7
Meat	152.9	196.0
Wool	129.6	191.5
Cotton	121.5	160.7
Grain and flour	182.8	159.8

* Provisional.

DISTRIBUTION OF TRADE, 1948–50

(In millions of pounds sterling)

Chief Destinations of Exports	1948	1949	1950*
Australia	144.7	188.5	255.9
Canada	70.5	79.3	125.9
South Africa	120.3	124.8	120.7
United States	66.1	57.1	113.0
India	96.0	117.1	96.8
Ireland	75.7	76.8	86.9
Chief Sources of Imports			
Australia	168.9	212.9	219.8
United States	183.2	222.0	211.6
Canada	217.0	224.5	179.3
New Zealand	108.7	117.1	133.6
France	45.9	75.0	110.0
Denmark	42.2	77.5	100.3

* Provisional.

COMMUNICATIONS. The merchant marine on June 30, 1950, totaled 6,060 ships (100 tons and over) with a gross tonnage of 18,219,247—21.53 per cent of the world total and second only to the U. S. merchant fleet. Losses during World War II totaled 2,426 vessels of 11,331,933 gross tons.

Nationalization of the railway and canal systems in Great Britain became effective Jan. 1, 1948, and they are now operated by the government's Transport Commission. Railway mileage in the United Kingdom (1949) was 20,735; in that year, 992,400,000 passengers and 279,800,000 long tons of freight were carried. The total length of public highways is 183,477 miles, of which 157,089 are in England and Wales and 26,388 in Scotland. In Feb., 1951, licensed motor vehicles numbered 3,933,000, of which 2,101,000 were cars and 855,800 trucks. Radio-receiving-set licenses in June, 1951, were 11,563,000; television sets, 897,000. Telephones numbered 4,922,816 on Mar. 31, 1950, a total second only to that of the U. S.

British air services throughout the world are nationalized under the Minister of Civil Aviation. Service is supplied by two public corporations—British Overseas Airways (BOAC) and British European Airways. In 1949, they flew respectively 27,688,000 and 15,161,000 air miles.

FINANCE. Recent data are as follows (in millions of pounds):

	1949–50	1950–51	1951–52*
Revenue	3,924.0	3,977.8	4,236.4
Expenditure	3,375.3	3,257.3	4,196.9

* Budget estimate.

Notes in circulation on Apr. 4, 1951, totaled £1,321,707,179. The net deadweight debt on Mar. 31, 1951, was £25,921,700,000 (1950: £25,802,300,000; 1949: £25,167,610,603; 1948: £25,620,762,603).

ESTIMATED REVENUE AND EXPENDITURE 1950–51

Estimated Revenue		
Income tax	£1,624,750,000	
Surtax	128,000,000	
Death duties	180,000,000	
Stamps	55,000,000	
Profits tax and excess profits tax	312,650,000	
Other inland revenue duties	500,000	
Special contribution	1,500,000	
Total inland revenue		*£2,302,400,000*
Customs	930,500,000	
Excise	720,500,000	
Total customs and excise		*1,651,000,000*
Motor vehicle duties		62,000,000
Total receipts from taxes		*4,051,400,000*
Surplus war stores		20,000,000
Surplus receipts from certain trading services		50,000,000
Wireless licenses		13,600,000
Receipts from sundry loans		27,000,000
Miscellaneous (including Crown lands)		105,000,000
Total estimated revenue		*£4,236,400,000*

Estimated Expenditure		
Consolidated fund:		
Interest and management of national debt	£535,000,000	
Payments to Northern Ireland Exchequer	38,000,000	
Misc. consolidated fund expenditures	11,000,000	
Total consolidated fund		*£584,000,000*

Supply services: Defense:		
Army	418,800,000	
Navy	278,500,000	
Air	328,750,000	
Ministry of Supply	81,500,000	
Ministry of Defense	6,212,000	
Total supply services		*£1,113,762,000*
Margin for supplementary defense estimate		*160,000,000*
Civil service:		
Central government and finance	18,521,000	
Commonwealth and foreign	95,642,000	
Home department, law and justice	66,561,000	
Education and broadcasting	277,898,000	
Local gov't and planning, housing, health, labor and nat'l insurance	870,507,000	
Trade, industry and transport	146,091,000	
Works, stationery, etc.	67,356,000	
Pensions	96,125,000	
Supply, food and miscellaneous	665,453,000	
Total civil service		*4,159,598,000*
Tax collection		37,323,000
Total estimated expenditure		*4,196,921,000*
Surplus		39,479,000
Grand total		*£4,236,400,000*

TOPOGRAPHY AND HYDROGRAPHY. The United Kingdom, consisting of England, Wales, Scotland and Northern Ireland, is about one-third the size of Texas. England, in the southeast part of the British Isles, is separated from Scotland on the north by the granite Cheviot Hills; from them the Pennine chain of uplands extends south through the center of England, reaching its highest point in the Lake district in the northwest. To the west along the border of Wales—a land of steep hills and valleys—are the Cambrian Mountains while the Cotswolds, a range of hills in Gloucestershire, extend into the surrounding shires. The remainder of England is plain land, though not necessarily flat, with the rocky sand-topped moors in the southwest, the rolling downs in the south and southeast and the reclaimed marshes of the low-lying Fens in the east central districts. Scotland is divided into three physical regions—the Highlands, the Central Lowlands, containing two-thirds of the population, and the Southern Uplands. The western Highland coast is intersected throughout by long narrow sea-lochs or fiords. Scotland also includes the Outer and Inner Hebrides and other islands off the west coast, and the Orkney and Shetland Islands off the north coast.

Wales is generally hilly; the Snowdon range in the northern part culminates in Mt. Snowdon (3,557 ft.), highest in either England or Wales.

In addition to the numerous inlets and bays of the coast, England has a group of lakes in the northwest which includes Windermere, Coniston, Derwentwater, Ullswater and Grasmere. Important rivers flowing into the North Sea are the Thames, Humber, Tees and Tyne. In the west are the Severn and the Wye, which empty into the Bristol Channel and are navigable, as are the Mersey and Ribble. Scotland has many picturesque lakes; its most important river is the Clyde.

CLIMATE. Although Great Britain lies in the same approximate latitude as Labrador, its climate is tempered by the westerly winds blowing off the warm Gulf Stream. The sea winds also prevent excessive summer heat. Rainfall is abundant, especially in the early fall. London's famed "pea-soup" fogs occur most frequently in November and March. It has been estimated that clouds, fogs or mists obscure the sun for approximately two-thirds of the daylight hours.

The mean annual temperature of England and Wales is about 50°; the west coast is somewhat warmer than the east. January is the coldest month (average about 40°) and July the hottest (about 61.5°). Highest July temperatures usually occur around London, where the mean is somewhat above 64°. Coldest months in the capital are December (about 38°) and January (about 39°). The mean annual rainfall in London is 23½ inches.

North of Birmingham, the summers are cool, and in Edinburgh the mean temperature in July is usually below 60°. Rainfall is less than in London.

MINERALS. Great Britain's most important mineral resource is coal, which was responsible to a large extent for British industrial supremacy during the late 18th and the 19th centuries. The coal mines were nationalized in 1946. Reserves have been variously estimated at from 150,000 million to 200,000 million tons. Prior to World War II, coal was exported in declining amounts to the continent, mainly to France, Sweden, Denmark and Italy. Since the war, however, exports have been negligible, and Britain has been hard put to meet her own minimum domestic requirements. Mineworkers numbered approximately 700,000 in 1950.

Most of the British iron ore is produced in England, especially in Cumberland, Lancashire and Staffordshire. Tin ore and

copper are obtained almost exclusively from Cornwall, while lead comes mainly from Flint, Durham and Derbyshire. Zinc occurs mainly in North Wales, the north of England, the Isle of Man and the county of Dumfries in Scotland. The whole British supply of china clay (kaolin)—of great importance in the ceramic, papermaking, bleaching and chemical industries—comes from Cornwall. Petroleum production is negligible, but oil shale exists in large quantities.

MINERAL PRODUCTION, 1949 and 1950
(in thousands of short tons)

	1949	1950
Coal	240,451*	242,431*
Iron ore	14,982	14,467
Superphosphates	1,124	—
Zinc (smelter)	72	79

* Excluding Northern Ireland.

The most important potential sources of water power are in the highlands of Scotland, North Wales and Cumberland. Electricity generated in England, Scotland and Wales averaged 5,036,000,000 kwh monthly in 1950 and 5,462,000,000 kwh monthly in the first four months of 1951. Gas manufacture averaged 1,286,000,000 cu. m. monthly in 1950. Nationalization of the electric and gas industries became effective in 1948.

FORESTS, FISHERIES. Great Britain was once heavily forested, but centuries of timber cutting and clearing have denuded the country of the original forests. Woodland of all types approximates 3,000,000 acres, and barely 40 per cent of Britain's surface is covered with timber. Consequently the nation is heavily dependent on imported timber.

Great Britain's sea fishing industry is among the most important in the world. The principal kinds of fish caught are herring, cod, haddock, plaice and hake, classed as wet fish, and, among shellfish, oysters, crabs and lobsters. The most important factor in the export trade is salted herring, which ordinarily represents about 70 per cent of the total. The principal grounds frequented by British fishermen are the North Sea; off Iceland; the Faeroes; south of Ireland; west of Scotland; west of Ireland; the Irish Sea and English Channel. The catch of wet fish in 1950 was 886,690 long tons valued at £35,818,915; about 40,000 men are regularly employed.

NORTHERN IRELAND

(Part of United Kingdom)

Area: 5,238 square miles.
Population (census 1951*): 1,369,579.
Density per square mile: 261.4.
Governor: Vice Admiral the Earl Granville.
Prime Minister: Sir Basil S. Brooke.
Principal cities (est. 1949): Belfast, 452,100 (capital); Londonderry, 50,000 (clothing).
Monetary unit: Pound sterling.
Language: English, Gaelic.
Religions (census 1947): Roman Catholic, 33.7%; Presbyterian, 31.4%; Church of Ireland, 26.9%; others, 8.0%.

* Provisional figures.

Northern Ireland comprises the six predominantly Protestant counties of Antrim, Armagh, Down, Fermanagh, Londonderry and Tyrone (collectively known as Ulster), which form the northern part of the island of Ireland. The area is an integral part of the United Kingdom, but under the terms of the Government of Ireland Act (1920) it has a semi-autonomous government, which has steadfastly refused to reconsider a decision made in 1922 not to associate itself in any sort of union with the rest of Ireland. This policy was endorsed overwhelmingly by voters in the 1949 elections.

The government has only limited powers for local purposes, and many matters are reserved to the central government at Westminster. Executive authority is vested in the Crown-appointed governor who is advised by a cabinet of eight ministers headed by the prime minister. The parliament consists of the House of Commons of 52 members elected for 5-year terms, and the Senate of 26 members elected by the House of Commons. The general elections of Feb. 10, 1949, returned 37 Unionists, 9 Nationalists, and 6 representatives of other groups to the House. The area is also represented by 12 members in the British Parliament at London.

Agriculture is the largest single industry; about two-thirds of the country is devoted to crops and pasture under a system of mixed farming. The leading crops include potatoes, oats and flax. In 1950 there were 974,000 cattle, 571,000 sheep and 512,000 hogs.

The two principal manufacturing industries are linen and shipbuilding, both centered in Belfast. The linen industry was established by Huguenot weavers who fled France after the revocation of the Edict of Nantes in 1685.

On March 31, 1951, 20 ships of 219,050 tons were under construction at Belfast.

Expenditure for the fiscal year 1950–51 was estimated at £47,504,000, and revenue at £63,577,000, of which £16,000,000 represented Northern Ireland's "contribution" to the British treasury. Most of the taxes are collected by the United Kingdom government.

In 1949–50 there were 1,632 primary schools (up to 11 years) in Northern Ireland, with enrollment of 185,712, and 79 secondary schools, with enrollment of 26,735. Students at the Queen's University (Belfast) numbered 2,686.

The topography of Northern Ireland is somewhat similar to that of the rest of the island, with two ranges (Donegal and Sperrin) and an extensive plateau (Antrim) in the northeastern part. Mineral resources are limited to deposits of basalt, clay, sandstone and granite. Fishing is an important industry, off the coast and in the numerous lakes and rivers which abound in salmon, eels and trout. Lough Neagh, covering about 153 square miles, is the largest lake in the British Isles.

The climate is comparable to that of the rest of the United Kingdom, although somewhat more equable. The highest mean summer temperature is about 59° in July, and the mean winter temperature rarely falls below 40°. Most of the comparatively light rainfall occurs in the autumn.

ISLE OF MAN

Lieutenant Governor: Air Vice Marshal Sir Geoffrey R. Bromet.

Located in the Irish Sea, equidistant from Scotland, Ireland and England, the Isle of Man is administered according to its own laws by a government composed of the lieutenant governor (appointed by the Crown), a legislative council of 11 members, and a House of Keys of 24 elected members, one of the most ancient legislative assemblies in the world. All sitting together constitute the court of Tynwald, which controls revenue and has executive power. Acts of the British Parliament do not affect the island unless it is specifically named.

Agriculture and fishing are the principal industries. The island is a popular English summer resort.

CHANNEL ISLANDS

Lieutenant Governor of Jersey: Lt. Gen. Sir Arthur E. Grasset.
Lieutenant Governor of Guernsey: Lt. Gen. Sir Philip Neame.

This group of islands, lying in the English Channel off the northwest coast of France, is the only portion of the Duchy of Normandy belonging to the English Crown, to which it has been attached since the conquest of 1066. It was the only British possession occupied by Germany during World War II.

For purposes of government the islands are divided into Jersey (45 sq. mi.) and the bailiwick of Guernsey (24 sq. mi.), including Alderney (3 sq. mi.), Sark (2 sq. mi.), Herm and Jethou. The islands are administered according to their own laws and customs by local governments headed by Crown-appointed lieutenant governors. Acts of Parliament in London are not binding on the islands unless they are specifically mentioned.

The two main sources of income for the population are agriculture, especially stock-raising, and the tourist trade. French is still the official language, although English is the main language of commerce and most government functions.

GIBRALTAR—Status: Colony.
Governor: Gen. Sir Kenneth Anderson.

Gibraltar, at the south end of the Iberian Peninsula, is a rocky promontory commanding the western entrance to the Mediterranean. Aside from its strategic importance, it is also a free port, naval base and coaling station. It was captured by the Arabs crossing from Africa into Spain in A.D. 711. In the 15th century it passed to the Moorish ruler of Granada and later became Spanish. It was captured by an Anglo-Dutch force in 1704 during the War of the Spanish Succession and passed to Britain by the Treaty of Utrecht in 1713. Most of the inhabitants are of Spanish, Italian and Maltese descent. There are no important industries. Gibraltar's climate is equable, with summer temperatures averaging about 84° maximum. Mean annual temperature is 64.4°.

MALTA—Status: Self-governing colony.
Capital: Valletta (population, 22,250).
Governor: Sir Gerald Creasy.
Prime Minister: G. Borg Olivier.
Foreign trade (1950): exports (including re-exports), £1,578,455; imports, £15,633,305. Chief exports: potatoes, onions.
Agricultural products: potatoes, onions, cereals, fruits.

The Maltese islands lie between Europe and Africa, in the central channel linking the eastern and western Mediterranean. The inhabited islands are Malta (95 sq. mi.), Gozo (26 sq. mi.) and Comino (1 sq. mi.). The Knights of St. John (Malta), who obtained the islands from Charles V in 1530, reached their highest fame when they withstood an attack by superior Turkish forces in 1565. Napoleon seized the island in 1798, but the French forces were ousted by British troops in 1799, and British rule was confirmed by the Treaty of Paris (1814). The principal importance of Malta is its strategic location as a naval base; it was heavily attacked by German and Italian aircraft during World War II but was never invaded by the Axis. Most of the population are Maltese, speaking the Phoenician Maltese language, a tongue akin to Syriac and Arabic. The islands are densely populated (2,561 per sq. mi.) and are heavily dependent on imports of foodstuffs.

Under its 1947 constitution, Malta enjoys a measure of self-government. The locally-elected assembly has complete control over domestic affairs, but the British government keeps control over matters dealing with defense and foreign affairs.

The climate is temperate and healthful. Annual mean temperature is 64.5°, with

June-September the hottest months and December-February the coldest (56°). Rainfall is irregular.

AFRICA

ANGLO-EGYPTIAN SUDAN (See EGYPT).

BRITISH SOUTH AFRICAN PROTECTORATES.

High Commissioner: Sir John Le Rougetel.

The three British protectorates in southern Africa—Basutoland, Bechuanaland and Swaziland—are not part of the Union of South Africa, but are administered by a High Commissioner responsible to the Secretary of State for Commonwealth Relations in the British cabinet. He also holds the office of High Commissioner for the United Kingdom in the Union of South Africa.

BASUTOLAND—Status: Protectorate.
Capital: Maseru (population 3,383).
Resident Commissioner: A. D. Forsyth Thompson.
Foreign trade (1949): exports, £1,275,437; imports, £2,244,117. Chief exports: wool, mohair.
Agricultural products: corn, wheat, sorghum.

Basutoland is a mountainous enclave surrounded by the Union of South Africa and bounded by the Orange Free State, Cape Province and Natal. It was constituted a native state under British protection by a treaty signed with the native chief Moshesh in 1843. It was annexed to Cape Colony in 1871, but on Mar. 13, 1884, was restored to direct control by the Crown. The resident commissioner is advised by a council of 100, of whom 95 are nominated by the native chiefs who administer the affairs of their tribes.

The population is restricted almost entirely to the lowland strip in the west; the white population (1,676 by the last census, in 1946) consists solely of officials, missionaries, traders and a few labor agents for employers in the Union of South Africa. About 100,000 natives are regularly employed in the Union. Sheep raising is highly developed. Land is the common property of the nation, held in trust by the chiefs. There are no European farmers.

The climate is dry and variable; temperatures range from 11° to 93°. Rainfall also is variable, but is heaviest during the summer; it averages about 30 inches annually.

BECHUANALAND—Status: Protectorate.
Capital: Mafeking, in Cape Province (population 4,666).
Resident Commissioner: A. Sillery.
Foreign trade: included in South African customs union. Chief export: pastoral products.
Agricultural products: hides and skins, cattle, butter, millet, maize.
Minerals: gold and silver (1947 value: £63,817).

Bechuanaland lies in south central Africa, bounded on the south and southeast by the Union of South Africa, on the west by South-West Africa, on the north by Angola and Northern Rhodesia and on the northeast by Southern Rhodesia. Its average elevation is 3,300 feet and the greater part is gently undulating. The area was placed under British protection on Sept. 30, 1885, to prevent further Boer encroachment and has since remained a British protectorate. The form of government is similar to that of Basutoland.

Most of the inhabitants are Bantu, but there were 2,325 Europeans in 1946, a few of them farmers. The country is essentially pastoral, with cattle raising and dairy farming the chief industries. Gold is mined in the Tati district near Francistown. There is also some mining of silver and copper. Timber is produced for use as fuel and pit props.

The summers are intensely hot; winters (May-August) are pleasant. Rainfall occurs mostly between December and May, and dust storms are frequent.

SWAZILAND—Status: Protectorate.
Capital: Mbabane (population 1,600).
Resident Commissioner: E. B. Beetham.
Foreign trade: included in South African customs union. Chief exports: cattle, asbestos.
Agricultural products: cattle, hides and skins, butter, tobacco, corn, millet.
Minerals: asbestos, tin, gold.

Swaziland lies at the southeastern corner of the Transvaal. It is largely hilly, with an average elevation of 4,000 feet in the west. It came under the protection of the Transvaal Republic in 1894 but was made a British protectorate in 1906 under the high commissioner for South Africa.

The natives are mostly Swazi; there were 3,204 Europeans in 1946, mostly farmers. Grazing is the principal native occupation; there is excellent pasture in the high land to the west. Tropical and subtropical crops are raised in the lower areas. Tin is mined near Mbabane. The country is dependent on road transport, by motor, oxen or mule.

Rainfall is moderate throughout the protectorate and is heaviest in summer. Average temperature ranges from about 65° in July to 80° or more in January.

GAMBIA—Status: Colony and protectorate.
Capital: Bathurst (population 21,152).
Governor: Percy Wyn Harris.
Foreign trade (1950): exports, £2,285,910; imports, £3,282,008. Chief export: peanuts (1950: 58,791 tons).
Agricultural products: peanuts, hides and skins, millet, rice, palm kernels.

Gambia, smallest of the British West African dependencies, is a stretch of land 200 miles long on both sides of the lower

Gambia River, surrounded on all land sides by French West Africa and fronting on the Atlantic Ocean. During the 17th century it was settled by various companies of English merchants; slavery was the chief source of revenue until it was abolished in 1807. Gambia became a Crown colony in 1843. Except for the island of St. Mary, on which the capital stands, the area is administered as a protectorate.

The inhabitants, mostly Negroes or negroids, are predominantly Mohammedan. The principal economic activity is the cultivation of peanuts. Internal transportation is by steamer and launch. Temperatures are fairly regular throughout the year, ranging from about 60° to 85°. Maximum rainfall is in August and September.

GOLD COAST—Status: Colonies (Gold Coast Colony, 23,937 square miles; Ashanti, 24,379 square miles); protectorate (Northern Territories, 30,486 square miles); U. N. trust territory (Togoland, 13,041 square miles).
Capital: Accra (population 135,456).
Governor: Sir Charles Arden-Clarke.
Foreign trade (1949): exports, £52,942,045; imports, £48,353,711. Chief exports: cacao (60%), gold, manganese ore.
Agricultural products: cacao (1949–50: 540,000,000 lb.), copra, palm kernels.
Minerals: gold (1949: 658,000 oz.), manganese ore (1948: 640,100 metric tons), diamonds (1949: 433,000 carats), bauxite.

Early a center of the slave trade and of Anglo-Dutch rivalry, the Gold Coast, stretching along the Gulf of Guinea for 370 miles, became a British possession in 1871. Ashanti, in the interior, became a protectorate in 1896 and was annexed in 1901. The Northern Territories, to the north of Ashanti, were made a protectorate in 1901. Under the 1951 constitution, which gave the colony greater responsibility in its own affairs than any other British colony in Africa, the Gold Coast is administered by a governor with an executive council and a legislative assembly of 84 members, of whom 75 are Africans. Togoland, formerly German, was divided into French and British spheres and placed under League of Nations mandate after World War I and under U. N. trusteeship on Dec. 13, 1946.

Except for 6,773 non-Africans (1948), the population is all Negro. The main native industry is the cultivation of cacao, in the production of which the colony leads the world. The climate on the coast is hot and humid, ranging on the average from 78° to 80°. Rainfall is chiefly from March to July and from September to October.

KENYA—Status: Colony and protectorate.
Capital: Nairobi (pop. 1948: 119,489).
Governor: Sir Philip E. Mitchell.
Foreign trade (1950)*: domestic exports, £17,182,209; re-exports, £3,554,797; imports, £34,077,864. Chief exports: sisal (24%), coffee (21%), hides and skins.
Agricultural products: sisal (1950: 40,900 long tons), tea (6,700 tons), coffee (1949–50: 6,300 tons), pyrethrum, sugar cane, cotton, corn, hides and skins.
Minerals: gold (1950: 22,900 oz.), sodium carbonate, silver, salt.
Forest products: wattle bark and extract, timber.

* Import and re-export figures exclude outward transfers of imported goods to Tanganyika and Uganda.

Kenya extends along the Indian Ocean between Ethiopia and Tanganyika Territory and westward to Lake Victoria and Uganda. Formerly known as the East Africa Protectorate, it was held under a concession from the Sultan of Zanzibar by the Imperial British East Africa Company from 1888 to 1905. It became a Crown colony in 1920, the coastal strip leased from the Sultan of Zanzibar becoming a protectorate.

The colony is predominantly agricultural, and a large area is cultivated by Europeans. Altitude ranges from sea level to more than 9,000 ft.; hence, the cultivation of tropical, subtropical and temperate crops is possible. Non-natives (1948) included 29,500 Europeans, 23,900 Arabs and 90,900 British Indians.

The coastal zone of Kenya is hot and humid; February to April are the hottest months, with a mean temperature of 82° at Mombasa. June and July are coolest (76° at Mombasa). The yearly average rainfall is about 48 inches. In the interior highlands the climate is temperate, and the rainfall comparatively heavy. Yearly average temperatures at Nairobi are 60° to 66°.

MAURITIUS—Status: Colony.
Capital: Port Louis (population 75,845).
Governor: Sir Hilary Blood.
Foreign trade (1950): exports (including re-exports), 152,869,000 rupees; imports, 175,802,000 rupees. Chief export: sugar (93%).
Agricultural products: sugar (1950: 457,000 metric tons), copra, tobacco.

Mauritius is a mountainous island of volcanic origin in the Indian Ocean, about 500 miles east of Madagascar. It was seized in 1810 from the French, who had settled it in 1715, and was formally ceded to Great Britain by the Treaty of Paris (1814).

With almost 600 persons per square mile, the island is one of the most densely populated regions in the world. The population has a large white element, chiefly French and British, but British Indians are predominant. There are many half-castes. The leading industry is sugar cultivation.

The climate is pleasant during the cool season, but extremely hot from December to April (90° to 96° at Port Louis). During

this period there are also frequent torrents of rain and occasional severe cyclones.

NIGERIA—Status: Colony and protectorate.
Governor: Sir John S. Macpherson.
Principal cities (est. 1947): Ibadan, 400,000 (native metropolis); Lagos, 176,000 (capital); Kano, 90,000 (textiles, leather goods, cattle).
Monetary unit: British pound.
Languages: Native tongues, Arabic, English.
Religions: Mohammedan, Pagan, Christian.

Nigeria, with an area twice that of California, is situated on the Gulf of Guinea in West Africa. It was visited by European traders and explorers in the 16th and 17th centuries, and by the end of the 18th century British operators had a virtual monopoly in the area. Between 1879 and 1914, a series of private colonial developments by the British, together with reorganizations of the Crown's interest in the region, resulted in the formation of Nigeria as it exists today. During World War I, native troops of the West African frontier force joined with French forces to defeat the German garrison in the Cameroons. The Cameroons, a narrow strip along Nigeria's eastern border, became a League mandate after World War I, divided between France and Britain. Today the British Cameroons, a U. N. trust territory, is attached to Nigeria for administrative purposes.

The governor of Nigeria, named by the British Crown, heads the administration of the colony, which (including the Cameroons) is divided into four sections, each composed of several provinces. The custom of rule by native regimes, advised by British residents, is effected locally wherever practicable. Under the 1947 constitution all legislative bodies have elected non-European majorities, but the governor has an absolute veto.

The vast majority of the population is Negro, although in the north there has been an admixture caused by invasions of Fula, Berber and Arab or Arabized people. Mohammedanism is the dominant religion, but Christian missionary societies are active.

Most of the people are agriculturists. The staple food crops are durra (guinea corn), millet, yams, bananas and maize. Among the leading export crops are cacao (1949–50 production: 100,000 short tons), peanuts (1948 production: 616,000 tons), rubber (1949 exports: 7,900 tons) and palm kernels and oil. Hides and skins are also important export items. Aside from small native industry, there is no manufacturing.

Most external trade is with Britain. Chief exports are cacao, peanuts, palm kernels and oil and tin ore. Exports in 1949 totaled £80,513,000; imports, £65,466,000.

There is a substantial internal trade; Kano is a busy terminal for caravan routes. The Niger and several other rivers are navigable; otherwise, the 1,901 miles of railway are the chief means of transportation. Highway mileage totals about 21,000. The main ports, except Lagos, are on rivers. Air service is supplied by BOAC, Air France and other international lines.

Nigeria is a leading tin producer—9,500 tons in 1950—from mines on the Bauchi plateau. Other minerals are coal, gold, lead, silver and tungsten. Over half the area is forested, but forest resources are comparatively unexploited. Mahogany is the main timber export, followed by cedar and walnut. Gum arabic is also exported.

Extending from twenty to sixty miles inland from the coast is the swampy Niger delta region, gradually giving way to hilly forest land. The larger part of the colony belongs to the great African plateau which, in Nigeria, reaches a maximum height of 3,000 feet. All of the colony lies within the tropics, but the climate varies from tropical in the south to near temperate on some parts of the plateau. In the south the temperature varies between 70° and 100°, and averages upwards of 80°.

NORTHERN RHODESIA—Status: Colony.
Capital: Lusaka (population 2,396).
Governor: Sir Gilbert Rennie.
Foreign trade (1950): exports, £49,271,664; re-exports, £670,060; imports, £26,710,475. Chief export: copper (85%).
Agricultural products: tobacco, maize, wheat.
Minerals: copper (1950: 275,564 long tons), cobalt, vanadium, lead, zinc.

Northern Rhodesia is in south central Africa, bounded on the north by the Belgian Congo and Tanganyika Territory, on the east and southeast by Nyasaland and Mozambique, on the southeast and south by Southern Rhodesia and Bechuanaland, and on the west by Angola. Much of the country consists of high plateau, with the Congo-Zambezi watershed rising in places to 5,000 feet. Rhodesia was assigned in 1889 to the British South Africa Company, headed by Cecil Rhodes. Administrative control was transferred to the Crown on Apr. 1, 1924.

Native tribes number from 50 to 60; there were 36,000 Europeans in 1950. More than 3,000,000 acres are owned and occupied by Europeans. Metals constitute almost all exports by value. Lead and zinc deposits occur at Broken Hill; copper at Bwana M'Kuba. The main line of the Rhodesian railway crosses the northern part of the colony from Livingstone to the Congo border. A number of rivers are navigable.

Average temperature in the south ranges from about 65° in July to 80° or more in October. The rainfall occurs principally between November and April.

NYASALAND—Status: Protectorate.
Capital: Zomba (pop. 1949: 7,526).
Governor: Sir Geoffrey F. T. Colby.
Foreign trade (1949): exports and re-exports, £4,849,275; imports, £5,721,925. Chief exports: tobacco (65%), tea.
Agricultural products: tobacco (1950: 15,928 short tons), tea, cotton.

Nyasaland, a British protectorate since 1891, is a narrow area lying between Mozambique, Northern Rhodesia and Tanganyika Territory along the southern and western shores of Lake Nyasa. Agriculture is the chief occupation, both of the European settlers and natives. Europeans numbered 3,820 in 1950.

Lake Nyasa furnishes the principal transportation facility. Mineral and forest resources are limited.

The climate is extremely humid along the shores of Lake Nyasa, although the temperature rarely rises above 95°. In the highlands, above 3,000 feet, average temperatures are considerably lower. The dry season, from May to September, is comparatively cool.

ST. HELENA—Status: Colony.
Capital: Jamestown (population 1,547).
Governor: Sir George A. Joy.
Foreign trade (1949): exports (domestic), £106,881; imports, £135,080. Chief exports: flax fiber and tow.
Agricultural products: flax, potatoes.

St. Helena is a volcanic island (47 sq. mi.) in the South Atlantic about 1,200 miles from the west coast of Africa. It is famous as the place of exile of Napoleon (1815–21). It was taken for Britain in 1651 by the British East India Company and became a Crown colony in 1833. Attached to it are Ascension Island (34 sq. mi.), 800 miles northwest, and the Tristan da Cunha group (45 sq. mi.), about 1,500 miles southwest. Most of the inhabitants are of mixed European, East Indian and African descent. Ascension was an Allied air base in World War II.

Although St. Helena is in the tropical zone, its climate is temperate and healthful; the temperature varies from 68° to 84° in summer and 57° to 90° in winter.

SEYCHELLES—Status: Colony.
Capital: Victoria (population 9,497).
Governor: Frederick Crawford.
Foreign trade (1949): exports (domestic), 5,421,350 rupees; imports, 5,109,430 rupees. Chief export: copra (80%).
Agricultural products: cinnamon, patchouli oil, coconuts, maize, sugar cane.

This archipelago of about 92 islands in the Indian Ocean was seized from France by British troops in 1794 and was ceded to Great Britain by the Treaty of Paris in 1814. The principal island is Mahé (55 sq. mi.), about 600 miles northeast of Madagascar. The climate of the archipelago is temperate and healthful.

SIERRA LEONE—Status: Colony and protectorate.
Capital: Freetown (population: 64,576).
Governor: Sir George Beresford-Stooke.
Foreign trade (1950): exports, £6,959,-130; imports, £6,745,865. Chief exports: palm kernels (34%), iron ore, diamonds, ginger.
Agricultural products: palm kernels and oil, rice, millet, cassava, rubber.
Minerals: diamonds (1950: 638,312 carats); iron ore (1,142,621 long tons), gold (2,804 oz.).
Forest products: palm kernels, piassava.

Sierra Leone lies on Africa's west coast between French Guinea and Liberia. It is a well-watered hilly country but has a low swampy coastland with an extremely unhealthful climate. The coastal area (colony proper) was ceded to English settlers in 1788 as a home for Negroes discharged from the British armed forces and also for runaway slaves who had found asylum in London. The British protectorate over the hinterland was proclaimed in 1896. It was not until 1928 that slavery was totally abolished in the protectorate.

Freetown is the best harbor on the west coast.

SOMALILAND—Status: Protectorate.
Administrative Center: Hargeisa (population 17,500).
Governor: Sir Gerald Reece.
Foreign trade (1948–49): exports, £435,-505; imports, £857,978. Chief export: hides and skins.
Agricultural products: cattle, hides and skins, grains.
Forest products: gums and resins.

British Somaliland extends along the Gulf of Aden for about 400 miles and inland for 80 to 220 miles. The interior is an elevated plateau falling in steep escarpments to the coastal plain. It came under Egyptian influence in 1875, but during the years 1884–86 treaties guaranteeing British protection were signed with the various Somali chiefs. Italian troops occupied the protectorate in 1940, but it was retaken by British troops in 1941. Both executive and legislative power is exercised by the governor.

Most of the inhabitants are nomadic Somalis of Mohammedan faith. Their principal activity is stock raising. The climate is extremely hot and arid, with rainfall in the coastal areas averaging less than 8 inches. The average temperature at Berbera, on the coast, is 77° in January and about 98° in July.

SOUTHERN RHODESIA—Status: Self-governing colony.
Capital: Salisbury (population: 61,760).
Governor: Maj. Gen. Sir John N. Kennedy.
Prime Minister: Sir Godfrey M. Huggins.
Foreign trade (1950): exports, £40,753,-999; imports, £58,874,779; re-exports, £7,-499,962. Chief exports: tobacco (42%), gold, asbestos, chrome ore.

Agricultural products: tobacco (1949–50: 107,017,869 lb.), corn, peanuts, meat, hides and skins.
Minerals: gold (1950: 511,163 oz.), asbestos (71,527 short tons), chrome ore, coal.

Southern Rhodesia is located between Northern Rhodesia, Bechuanaland, the Union of South Africa and Mozambique in south central Africa; it is part of the great South African plateau. The Zambezi River separates Northern and Southern Rhodesia. About two-thirds of the area is covered by trees and shrubs.

The country was settled in 1890 by the British South Africa Company, led by Cecil Rhodes. With the expiration of the company's charter, the white residents voted (1922) in favor of a responsible government of their own, and on Sept. 12, 1923, the country was annexed to Britain.

Southern Rhodesia's constitutional position is midway between that of a colony and a dominion. It has responsible government and a popularly elected Legislative Assembly of 30 members, but control of foreign relations and certain other matters is reserved to the U. K. government.

Most of the inhabitants are natives, but the country is well-adapted to European settlers, who in late 1950 numbered 129,000. In addition, there were 8,800 Asiatics and half-castes. Mining is the basis of the economy. Farming ranges from ranching to tobacco growing, but mixed farming is becoming more common. Conditions for cattle raising and dairy farming are especially favorable. Manufacturing is of growing importance, with the factories producing goods valued at £31,316,000 in 1949. The colony is well served with railways (1,361 mi.), roads (4,000 mi.) and airlines.

The hottest month is October (mean maximum 85.2°); the coolest are June, July and August, when frost is likely to occur. Generally the days are hot throughout the year, and the nights are frequently cool. Rainfall is greatest in October, November and December.

SOUTH-WEST AFRICA **(See UNION OF SOUTH AFRICA)**

SWAZILAND **(See BRITISH SOUTH AFRICAN PROTECTORATES)**

TANGANYIKA TERRITORY—Status: U. N. trust territory.
Capital: Dar es Salaam (pop. 1948: 69,227).
Governor: Sir Edward F. Twining.
Foreign trade (1950)*: domestic exports, £23,768,457; re-exports, £1,286,135; imports, £23,999,681. Chief exports: sisal (50%), coffee (15%), cotton, hides and skins.
Agricultural products: sisal (1950: 121,600 long tons), cotton (7,300 tons), coffee, peanuts, sugar cane, tobacco, tea.
Minerals: diamonds (1950: 70,600 carats), gold (65,100 oz.).
Forest products: gum arabic and copal (1948 exports: 1,490 tons), beeswax, timber.
* Import and re-export figures exclude outward transfers of imported goods to Kenya and Uganda.

Tanganyika Territory, with the Belgian Ruanda and Urundi, constituted German East Africa from 1884 until 1919. It was administered under League of Nations mandate by Britain until 1946, when it was placed under United Nations trusteeship, with Britain as the administering power.

Tanganyika's narrow coastal plain is bordered on the west by the precipitous eastern side of the Central African plateau. Mount Kilimanjaro (19,565 ft.) is the highest point on the African continent. The territory also includes adjacent islands in the Indian Ocean.

The territory is sparsely populated; about two-thirds of the total area is uninhabited. In 1948 there were 16,100 Europeans and 59,300 Asiatics. It is the world's largest producer of sisal hemp. Most of the hemp, which is of the highest grade, is grown in the drier parts of the coast belt under European supervision. Stock raising is also important, but its progress is hampered by prevalence of the tsetse fly. A large diamond vein was discovered at Shinyanga in 1946.

The climate generally is hot and humid on the coastal areas, with the temperature averaging 80° at Dar es Salaam. Rainfall in the capital averages 60 inches. Inland the rainfall and temperature are lower.

UGANDA—Status: Protectorate.
Capital: Entebbe (population 7,321).
Governor: Sir John Hall.
Foreign trade (1950)*: domestic exports, £28,669,157; re-exports, £210,193; imports, £15,402,126. Chief exports: cotton lint (58%), coffee (29%).
Agricultural products: cotton (1949–50: 60,000 long tons); coffee (1950 exports: 31,800 tons), sugar cane, rubber, tea, sisal.
Minerals: gold, tin.
* Import and re-export figures exclude outward transfers of imported goods to Kenya and Tanganyika.

Uganda lies immediately south of Anglo-Egyptian Sudan and west of Kenya, along the northwest shore of Lake Victoria. The surface is extremely diversified, with lofty plateaus, snow-capped peaks, swamps, forests and arid areas. A British protectorate over the area was proclaimed in 1894. A large measure of home rule is given the native states, notably Buganda, whose *kabaka* (king) is assisted by a ministry and native parliament.

Agriculture, including livestock, is the basis of the economy. Cotton is raised, principally by natives, and coffee, tea and rubber are grown on large plantations. Most natives possess large herds of cattle and sheep. In 1948 there were 7,600 Europeans and 37,450 Asiatics in the protectorate.

Like the topography, the climate is ex-

tremely variable. At Entebbe, the mean temperature is about 70°, with rainfall heaviest from March through May, and in November and December.

Union of South Africa (Dominion)

Area: 472,550* square miles.
Population (est. 1950): 12,320,000* (1946: European, 20.7%; Bantu, 68.7%; mixed, 8.1%; Asiatic, 2.5%).
Density per square mile: 26.1.*
Governor General: Ernest G. Jansen.
Prime Minister: Daniel F. Malan.
Principal cities (census 1946): Johannesburg, 727,743 (gold, industrial center); Capetown, 454,052 (seat of legislature, seaport); Durban, 357,304 (seaport); Pretoria, 236,367 (seat of administration); Port Elizabeth, 146,231 (seaport).
Monetary unit: South African pound (£SA).
Languages: English, Afrikaans.
Religions (European population): Dutch Reformed Churches, 55%; Anglican Church, 19%; Methodist, 6%; Presbyterian, 5%; Roman Catholic, 5%; others 10%.

* Excluding South West Africa.

HISTORY. After the discovery of the Cape of Good Hope in 1488 by Bartholomeu Diaz, the Dutch sent the first colonists to the area in 1652. The British seized the territory in 1814 near the close of the Napoleonic wars, when Holland was France's ally. In protest against the British rule, thousands of Boers, settlers of Dutch descent, trekked northward between 1835 and 1838 and set up the republics of Orange Free State and Transvaal, subsequently recognized by the British.

The discovery of gold in Transvaal in 1886 brought an influx of English and other foreigners. British demands that these immigrants be enfranchised by the Transvaal government precipitated the South African War of 1899–1902, won by the British. By the Treaty of Vereeniging (May 31, 1902) the Boers renounced the independence of Transvaal and Orange Free State. In 1910, Cape Colony, Transvaal, Natal and the Orange Free State were set up as the Union of South Africa, with dominion status and with Louis Botha, a former Boer general, as the first prime minister. During World War I, South African forces seized German South-West Africa, over which the Union later received a mandate by the Treaty of Versailles.

When World War II broke out, there was considerable pro-German and anti-British feeling in South Africa. The country went to war against the Axis, however, under the leadership of Prime Minister Jan C. Smuts, and South African forces fought in many theaters.

In the elections of May, 1948, Smuts' United party was defeated by a Nationalist-Afrikaner coalition, which favored strict racial segregation. Violent race riots broke out between Indians and Zulus in Durban and vicinity during Jan., 1949, with a toll of 142 dead and more than 1,000 injured.

GOVERNMENT. The Union of South Africa, as a self-governing dominion, has its own legislature, a Senate of forty-four members elected for ten years, and a House of Assembly of 153 members elected for five years. All legislators must be Union nationals of European descent, and suffrage is virtually limited to whites. The governor general, appointed by the British Crown after consultation with the Union, can summon or dissolve the Senate and House, but a general election must be held at least once every five years.

In parliamentary elections held on May 26, 1948, 71 seats went to the Nationalist party, 65 to the United party, 9 to the Afrikaner party and 6 to the Labour party. The first parliamentary elections in South-West Africa, held Aug. 30, 1950, added 6 new Nationalist seats.

The elected councils in each of the four provinces have only such powers as are delegated to them. Each is headed by an administrator appointed by the central government.

Political considerations made the draft inexpedient in World War II, and all members of the armed forces were volunteers. The postwar strength of the defense forces is fixed as follows: army, 4,640; air force, 3,319; navy, 863; a total strength of 8,822 as opposed to 5,549 in the prewar establishment. The navy, only slightly expanded in World War II, has 60 small vessels.

EDUCATION. Education for white children is compulsory from 7–16. Primary education is free and, except for vocational schools and the five universities, all education is under provincial control.

In 1946 there were 2,851 state and state-aided primary and secondary schools for European scholars, who numbered 413,884, and 6,030 non-European schools with enrollment of 864,410. The average number of university students was 19,994.

The official languages are English and Afrikaans. The latter, derived from 17th-century Dutch, is taught in almost all the schools. About 70 per cent of the population over 7 years old understands both languages. People speaking Afrikaans as a "home" language predominate in all provinces except Natal, where most of the Asiatic population, chiefly laborers from South India, is concentrated. European and Asiatic immigration is strictly controlled.

AGRICULTURE. South Africa is predominantly a pastoral country, with less than 15 per cent of its area considered arable. Sheep and cattle raising are the principal occupations, especially in the high veldt. Wool production in 1950 was estimated at 217,500,000 lbs. In 1948 there were 32,-

612,000 sheep, 12,470,000 cattle and 1,105,583 hogs (1947).

Climate and differences in terrain combine to give a great variety of agricultural products. The staple crop is maize, grown widely with a production varying from 1½ to 3 million tons annually. In southwest Cape Province, products of the Mediterranean type predominate, while in the coastal belt of Natal and in northern Transvaal, subtropical crops, especially sugar, are grown.

Production of leading crops in recent years has been estimated as follows: maize (1950: 2,831,700 short tons); wheat (1950: 607,500 tons); tobacco (1950: 20,832 tons); sugar (1949–50: 561,122 tons).

MANUFACTURING AND TRADE. In 1947, there was a total of 11,886 factories with 558,725 workers, and the gross value of industrial output was £491,800,000. Food, beverages and tobacco, and metal products are leading products. As a result of the need for armaments in World War II, the Union's manufacturing is no longer mainly devoted to agricultural processing. A wartime iron and steel industry was established, and cement, chemical, textile and auto assembly plants were expanded. Steel production in 1950 was 897,600 short tons; that of pig iron, 806,500 tons. The major industrial area is southern Transvaal.

Trade statistics (in millions of South African pounds):

	1948	1949	1950
Exports*	136.7	156.7	248.3
Re-exports†	15.8	17.1	23.6
Imports	353.5	315.3	307.4

* Excluding gold bullion. † Included in export total.

Chief customers in 1950 were Britain (26%), France (12%), the U. S. (8%) and Southern Rhodesia (7%); the principal suppliers, Britain (41%), the U. S. (16%) and Canada (4%). Chief exports (besides gold bullion) were wool (25%), semi-processed gold (12%) and diamonds (8%). Principal imports included textiles, farm and industrial machinery, motor vehicles and petroleum products.

COMMUNICATIONS. The well-organized railway system, mostly Union-controlled, totaled 13,931 miles in 1949. Roads suitable for motor traffic amounted to 100,000 miles. Regular air service is available to Europe and to the U. S.

FINANCE. Recent data are as follows (in millions of South African pounds):

	1948–49*	1949–50*	1950–51†
Revenue	143.4	145.7	148.7
Expenditure	135.8	146.5	149.0

* Revised estimate. † Draft estimate.

The net public debt of the Union on Mar. 31, 1950, was £SA717,716,000, of which £SA28,466,000 was external. Notes in circulation on Mar. 31, 1951, totaled £SA74,600,000; the gold reserve was US$205,000,000 (Mar. 31, 1946: $939,000,000).

TOPOGRAPHY AND CLIMATE. The Union has a high interior plateau, or veldt, nearly half of which averages 4,000 feet in elevation. There are no important mountain ranges, although the Great Escarpment, separating the veldt from the coastal plain, rises to over 10,000 feet. The principal river is the Orange, rising in Basutoland and flowing westward for 1,300 miles through the Union's center to the Atlantic.

Except for the western semi-arid regions, the climate is generally subtropical, much like that of northern Florida. Rainfall averages about 40 inches a year on the east coast and decreases sharply westward. The mean annual temperature is remarkably uniform; at Johannesburg it is 60.6°, with January the hottest month. Most of the rainfall occurs from October to March.

MINERALS, FORESTS AND FISHERIES. Extensive mineral resources account for the economic prosperity. The dominion is the world's leading gold producer. Diamond production is now surpassed in importance by coal. Mineral production for 1950 included gold, 11,663,713 oz.; coal, 29,181,801 short tons; manganese ore, 871,863 tons; chromite, 547,106 tons; iron ore, 1,310,921 tons; asbestos, 87,414 tons; copper, 14,296 tons; platinum, 144,217 oz. Gypsum, tin, tungsten and antimony also are mined, and uranium deposits have been reported.

Forests cover only a small portion of the Union, and are mostly in the east. The whaling industry, centered at Durban on the east coast, produces considerable amounts of whale oil. The Union has extensive fishery resources along the 1,500 miles of coast line. Annual trawler catch of edible fish is about 95,000,000 pounds.

SOUTH-WEST AFRICA—Status: Mandate.
Administrator: P. I. Hoogenhout.
Capital: Windhoek (population 23,359).
Foreign trade (1950)*: exports, £SA21,508,868; imports, £SA13,069,814. Chief exports: karakul skins, butter, slaughter animals, diamonds.
Agricultural products: hides and skins, butter, corn, wheat.
Minerals: diamonds, vanadium concentrates, tungsten, lead, tin, iron ore and copper.

* Includes trade with Union of South Africa.

The mandate, bounded on the north by Angola, and on the east by Bechuanaland and the Union of South Africa, was discovered by the Portuguese explorer Diaz in the late 15th century. It is for the most part a portion of the high plateau of South Africa with a general elevation of from 3,000 to 4,000 feet. It became a German colony in 1884 but was conquered by South

African forces in 1915, becoming a Union mandate by the terms of the Treaty of Versailles. The Union of South Africa's application for incorporation of the territory into the Union was rejected by the United Nations assembly on Dec. 14, 1946, and the Union was invited to prepare a trusteeship agreement instead. By a law passed in April, 1949, however, the territory was brought into much closer association with the Union—including representation in the Union Parliament.

The country in general is better suited to grazing than to the raising of crops because of the light rainfall. The karakul sheep industry is particularly well-developed; in 1950, 2,607,327 skins were exported. The Union accounts for almost all the imports and about 40 per cent of the exports. Most of the natives live on large reserves. The principal port is Walvis Bay.

ZANZIBAR—Status: Protectorate.
Capital: Zanzibar (population 60,000).
Sultan: Seyyid Sir Khalifa bin Harub.
British Resident: J. D. Rankine.
Foreign trade (1949): exports, £2,823,336; imports, £2,979,874. Chief export: cloves.
Agricultural products: cloves, copra, sisal.

The protectorate consists principally of the islands of Zanzibar (640 sq. mi.) and Pemba (380 sq. mi.), just off the East African coast. Before 1890, the sultanate's territory also included a large area on the mainland, now comprising Italian Somaliland, Kenya and Tanganyika Territory. It was proclaimed a British protectorate Nov. 4, 1890. The British resident administers the government, but the sultan still retains considerable authority.

The principal industry is the production of cloves—80 per cent of the world supply.

The climate is excessively hot and moist, with a mean annual temperature of 80.5°. June to September is the coolest season.

WESTERN HEMISPHERE

BAHAMAS—Status: Colony.
Capital: Nassau (population 33,247).
Governor: Maj. Gen. R.A.R. Neville.
Foreign trade (1950): exports (including re-exports), £904,671; imports, £6,150,200. Chief exports: lumber, tomatoes.
Agricultural products: tomatoes, citrus fruit, sisal.
Sea products: sponges, lobsters.

The Bahamas are an archipelago of about 3,000 islands, islets (cays) and rocks, east of Florida and north of Cuba, extending from N.W. to S.E. for about 800 miles. Only about 20 of the islands are inhabited; the most important is New Providence (20 sq. mi.) on which Nassau is located. The islands were reached by Columbus in Oct., 1492, and were a favorite pirate resort in the early 18th century. They have been a Crown colony since 1717. The constitution provides for a nominated Legislative Council and a popularly elected Assembly. The governor is advised by an Executive Council.

About 87 per cent of the population is Negro. The tourist trade is of considerable importance, especially at Nassau, which is a favorite winter resort. The climate is exceptionally agreeable, with mean temperatures ranging from 60° (January to March) to 88° (June to September). The rainy season is May through October; hurricanes occur usually from July to October.

Agriculture, except for tomato and sisal culture, is of little importance. Straw and shellwork are the principal industries. An R.A.F. unit is stationed in the archipelago.

BARBADOS—Status: Colony.
Capital: Bridgetown (population 13,345).
Governor: Sir Alfred Savage.
Foreign trade (1950): exports, BWI$27,643,082; imports, BWI$38,726,132. Chief exports: sugar (60%), molasses, rum.
Agricultural products: sugar (1950: 142,981 long tons), cotton.
Manufactures: rum (1950: 1,153,937 wine gal.), molasses (5,016,475 gal.).

Barbados, an island east of the Windward group in the West Indies, has been a British possession since 1627; it is believed to have been first visited by the Portuguese. The colony has a nominated Legislative Council and a popularly elected Assembly of 24 members, but the Crown, represented by the governor, retains veto power.

The island is very densely populated (about 1,275 per sq. mi.). About 70 per cent of the inhabitants are Negro, 7 per cent white and the remainder of mixed blood. Approximately 70 per cent of the total area is cultivated and half of this is devoted to sugar, which is the staple product; there are 100 sugar and molasses plants and 3 rum distilleries.

Barbados has an agreeable climate, with temperatures that range between 70° and 86°, rarely below 65°. The cold season (December through May) is also the dry season; average annual rainfall is 60 inches, with September the wettest month.

BERMUDAS—Status: Colony.
Capital: Hamilton (population 3,500).
Governor: Lt. Gen. Sir Alexander Hood.
Foreign trade (1949): exports (including re-exports), £943,211; imports, £7,182,178. Chief export: lily bulbs.
Agricultural products: lily bulbs, potatoes, vegetables, arrowroot.

The Bermudas comprise an archipelago of about 360 small islands, 580 miles east of North Carolina. The largest is (Great) Bermuda or Main Island. Discovered by Juan Bermudez, a shipwrecked Spaniard, early in the 16th century, the islands were settled in 1612 by an offshoot of the Virginia Company and became a Crown colony

in 1684. The governor is assisted by nominated Executive and Legislative Councils and a popularly elected Assembly of 36 members. In 1940, sites on the islands were leased for 99 years to the U. S. for air and navy bases. Bermuda is also the headquarters of the West Indies and Atlantic squadron of the Royal Navy. The most important factor in the colony's economy is the tourist trade. The mean annual temperature is 71°, with extremes of 49° and 94°. Rainfall averages 58 inches annually.

BRITISH GUIANA—Status: Colony.
Capital: Georgetown (population 97,821).
Governor: Sir Charles Woolley.
Foreign trade (1950): exports (including re-exports), BG$50,254,942; imports, BG$55,057,592. Chief exports: sugar (46%), bauxite, rice, rum.
Agricultural products: sugar (1950: 195,651 long tons), rice, copra, coffee.
Minerals: bauxite (1950: 1,583,377 long tons), gold (13,740 oz.), diamonds (37,462 carats).
Forest products: balata, timber.

The only British possession in South America proper, British Guiana is on the northeastern coast between Venezuela and Surinam (Dutch Guiana). Settled by the Dutch in the 17th century, it was occupied by the British in 1796 and ceded to them at the end of the Napoleonic wars. Behind the low plain which contains the farm area is a higher area containing forest and mineral resources. The governor is assisted by an Executive Council; the Legislative Council has an elected majority.

The heterogeneous population includes Africans and mixed races, 49.5 per cent; East Indians, 44 per cent; aborigines, 2.5 per cent; Portuguese, 2.2 per cent; Chinese, .1 per cent; and others, .8 per cent.

Cultivated areas cover only 155,000 acres, mostly devoted to rice and sugar cane. About 86 per cent of the colony is forested, but the vast forest resources are relatively unexploited. Timber resources have been estimated at 41,000,000,000 cu. ft. of merchantable timber. Railway mileage is 110, and highway mileage about 700; communication to the interior is mainly by steamer and launch. The colony's production of bauxite was of strategic importance during World War II.

The coastland climate is relatively hot and humid, with average temperatures of 78° in January and 81° in October, and only a slight variation between day and night. Inland temperatures are roughly 3° higher. Rainfall is heavy along the coast.

BRITISH HONDURAS—Status: Colony.
Capital: Belize (population 21,837).
Governor: Sir Ronald H. Garvey.
Foreign trade (1950): exports (including re-exports), BH$4,756,194; imports, BH$8,782,607. Chief exports: chicle, mahogany.
Agricultural products: bananas, sugar cane, citrus fruits.
Forest products (1950): cedar lumber and logs (931,128 bd. ft.); mahogany logs and lumber (9,009,708 bd. ft.); pine lumber (10,872,972 bd. ft.); chicle (467 short tons).

British Honduras is bounded on the north by Mexico and on the west and south by Guatemala. It was settled in 1662 by woodcutters from Jamaica. An irregular form of local government continued until 1871, when it became a Crown colony; it was separated from Jamaica in 1884. The governor is assisted by an Executive Council and a partly elected Legislative Council.

The colony's economy is dependent upon timber and other forest exports. Agriculture has never been adequately developed. There are no railways, and road development is backward (about 135 mi. surfaced). Most of the population are mestizos of Negro, native Indian and white descent.

The climate is subtropical, with maximum recorded temperature of 98°, and minimum of 50°. Rain falls mostly from May to February, and almost continuously from October through December.

Canada (Dominion)

Area (land only): 3,619,616 square miles.
Population (est. June 1, 1950): 13,845,000 (1941*: British, 50%; French, 27%; German, 4%; Ukrainian, 2%; others, 17%).
Density per square mile: 3.8.
Governor General: Field Marshal Viscount Alexander of Tunis.
Prime Minister: Louis Stephen St. Laurent.
Principal cities (census 1941): Montreal, 903,007 (est. 1949: 1,420,057) (seaport); Toronto, 667,457 (est. 1949: 673,104) (manufacturing center); Vancouver, 275,353 (Pacific seaport); Winnipeg, 221,960 (grain); Hamilton, 166,337 (iron and steel); Ottawa, 154,951 (capital); Quebec, 150,757 (seaport); Windsor, 105,311 (automobiles).
Monetary unit: Canadian dollar.
Religions (census 1941)*: Roman Catholic, 42%; United Church, 19%; Anglican, 15%; Presbyterian, 8%; Baptist, 4%; others, 12%.

* Excluding Newfoundland.

With the second largest continuous land area in the world, stretching across the northern part of the North American continent, the Dominion of Canada is one of the world's leading sources of wheat, minerals, and paper and pulp. Unsurpassed in its record of loyalty to the Empire in both World Wars, the Dominion has continued its wartime policy of close military and political co-operation with the U. S.

HISTORY. The Norse explorer Leif Ericsson probably reached the shores of Canada (Labrador or Nova Scotia) in A.D. 1000, but the history of the white man in the country actually began in 1497, when John Cabot, an Italian in the service of Henry VII of England, reached the shore of Newfoundland or Nova Scotia. Canada was

Canadian Governors General and Prime Ministers Since 1867

Term of office	Governor General
1867–1869	Viscount Monck
1869–1872	Baron Lisgar
1872–1878	Earl of Dufferin
1878–1883	Marquess of Lorne
1883–1888	Marquess of Lansdowne
1888–1893	Baron Stanley
1893–1898	Earl of Aberdeen
1898–1904	Earl of Minto
1904–1911	Earl Grey
1911–1916	Duke of Connaught
1916–1921	Duke of Devonshire
1921–1926	Viscount Byng
1926–1931	Viscount Willingdon
1931–1935	Earl of Bessborough
1935–1940	Baron Tweedsmuir
1940–1946	Earl of Athlone
1946–	Field Marshal Viscount Alexander of Tunis

Term	Prime Minister	Party
1867–1873	Sir John A. Macdonald	Conservative
1873–1878	Alexander Mackenzie	Liberal
1878–1891	Sir John A. Macdonald	Conservative
1891–1892	Sir John J. Abbot	Conservative
1892–1894	Sir John S. D. Thompson	Conservative
1894–1896	Sir Mackenzie Bowell	Conservative
1896(2 mos)	Sir Charles Tupper	Conservative
1896–1911	Sir Wilfrid Laurier	Liberal
1911–1917	Sir Robert L. Borden	Conservative
1917–1920	Sir Robert L. Borden	Unionist
1920–1921	Arthur Meighen	Unionist-National, Conservative
1921–1926	W. L. Mackenzie King	Liberal
1926(3 mos)	Arthur Meighen	Conservative
1926–1930	W. L. Mackenzie King	Liberal
1930–1935	Richard B. Bennett	Conservative
1935–1948	W. L. Mackenzie King	Liberal
1948–	Louis Stephen St. Laurent	Liberal

taken for France in 1534 by Jacques Cartier. The actual settlement of New France, as it was then called, began in 1604 at Port Royal in what is now Nova Scotia; in 1608 Quebec was founded. France's colonization efforts were not very successful, but French explorers by the end of the 17th century had penetrated beyond the Great Lakes to the western prairies and south along the Mississippi to the Gulf of Mexico. Meanwhile, the English Hudson's Bay Company had been established in 1670. Because of the valuable fisheries and fur trade, a conflict developed between the French and English; in 1713, Newfoundland, Hudson Bay and Nova Scotia (Acadia) were lost to England.

During the Seven Years' War (1756–63), England extended its conquest, and the British general, Wolfe, won his famous victory over Montcalm outside Quebec (Sept. 13, 1759). The Treaty of Paris (1763), put Canada under English control.

At this time the population of Canada was almost entirely French, but in the next few decades thousands of British colonists emigrated to Canada from the British Isles and from the American colonies. Partly to placate the French who were concentrated in Quebec, Canada was divided into Upper (British) and Lower (French) Canada in 1791. In 1840 the two provinces again were joined under one government, and in 1849 the right of Canada to self-government was recognized. By the British North America Act of 1867, the Dominion of Canada was created through the confederation of Upper and Lower Canada, Nova Scotia and New Brunswick. Prince Edward Island joined the Dominion in 1873. In 1869 Canada had purchased from the Hudson's Bay Company the vast middle west (Rupert's Land) from which the provinces of Manitoba (1870), Alberta and Saskatchewan (1905) were later formed. In 1871 British Columbia joined the Dominion. The country was linked from coast to coast in 1885 by completion of the Canadian Pacific Railway.

During the formative years between 1867 and 1896, the Conservative Party led by Sir John A. Macdonald governed the country, except during the years 1873–78. In 1896 the Liberal Party took over and under Sir Wilfrid Laurier, an eminent French Canadian, ruled until 1911. In World War I, more than 500,000 Canadian soldiers fought for the Allied cause. After the Treaty of Versailles, Canada, a full-fledged nation, was admitted to the League of Nations and appointed its own representatives in foreign countries. By the Statute of Westminster (1931) the British Dominions, including Canada, were formally declared to be partner nations with Britain, "equal in status, in no way subordinate to each other," and bound together only by allegiance to a common Crown. The Liberal

Party under W. L. Mackenzie King won the elections in 1935 and was returned to power in 1940 and 1945 (he had previously served as prime minister from 1921 to 1930, except for three months in 1926). On Nov. 15, 1948, King resigned and was succeeded by Louis Stephen St. Laurent, who was returned as prime minister in the national elections of June 27, 1949.

Newfoundland became Canada's tenth province on March 31, 1949, following a plebiscite held July 22, 1948, in which the people voted by a narrow margin to unite with Canada.

PROVINCES AND TERRITORIES

Province	Land area (sq. mi.)	Population (est.) June 1950
Alberta	248,800	895,000
British Columbia	359,279	1,138,000
Manitoba	219,723	795,000
New Brunswick	27,473	522,000
Newfoundland	152,734	355,000
Nova Scotia	20,743	658,000
Ontario	363,282	4,512,000
Prince Edward Island	2,184	96,000
Quebec	523,860	3,976,000
Saskatchewan	237,975	874,000
Territories		
Northwest Territories	1,258,217	16,000
Yukon	205,346	8,000

Provinces	Capital	Prime Minister 1951
Alberta	Edmonton	Ernest C. Manning[1]
British Columbia	Victoria	Byron I. Johnson[3]
Manitoba	Winnipeg	D. L. Campbell[3]
New Brunswick	Frederic-ton	John B. McNair[3]
Newfoundland	St. John's	Joseph Smallwood[2]
Nova Scotia	Halifax	Angus L. Macdonald[3]
Ontario	Toronto	Leslie Frost[3]
Prince Edward Island	Charlotte-town	Walter Jones[3]
Quebec	Quebec	Maurice Du-plessis[4]
Saskatchewan	Regina	T. C. Douglas[5]
Territories		
Northwest	Ottawa	H. A. Young*
Territories		
Yukon	Dawson	J. E. Gibben*

[1] Social Credit; [2] Liberal; [3] Progressive; [4] Union Nationale; [5] Co-operative Commonwealth Federation. * Commissioner.

GOVERNMENT. Canada, a self-governing dominion of the British Commonwealth of Nations, is a federal union of 10 provinces whose powers are laid down in the British North America Act of 1867. The executive powers nominally rest in the hands of the Governor General, who represents the King and is appointed by the British Government with the approval of the Canadian Government.

Actually, the Governor General acts only with the advice of the Canadian Prime Minister and the members of the Cabinet, who at the same time sit in the Dominion Parliament. The Parliament has two houses: a Senate numbering 102 members appointed for life, and a House of Commons numbering 262 members apportioned according to provincial population. Elections are held at least every five years or whenever the party in power is voted down in the House of Commons or considers it expedient to appeal to the people. The Prime Minister is the leader of the majority party in the House of Commons. Laws must be passed by both houses of Parliament and signed by the Governor General in the King's name. The results of Parliamentary elections on June 27, 1949, were as follows: Liberals, 193; Progressive Conservatives, 42; Co-operative Commonwealth Federation, 12; Social Credit, 10; independents, 5.

The members of the Cabinet (July 1951) include Louis S. St. Laurent (Prime Minister), L. B. Pearson (External Affairs), W. McL. Robertson (Minister without Portfolio), Alphonse Fournier (Public Works), Lionel Chevrier (Transport), Milton Gregg (Labor), Stuart Garson (Justice, Solicitor General), R. W. Mayhew (Fisheries), C. D. Howe (Trade and Commerce, Defense Production), J. G. Gardiner (Agriculture), J. J. McCann (National Revenue), George Prudham (Mines and Technical Surveys), P. J. Martin (Health and Welfare), Edouard Rinfret (Postmaster General), D. C. Abbott (Finance), Brooke Claxton (Defense), Hugues Lapointe (Veterans Affairs), R. H. Winters (Reconstruction, Resources and Development), Walter Harris (Citizenship and Immigration) and Gordon Bradley (Newfoundland).

The ten provincial governments are nominally headed by Lieutenant Governors appointed by the Dominion Government, but the executive power in each actually is vested in a cabinet headed by a prime minister, who is leader of the majority party. In nine of the ten provinces the legislature is composed of a one-house assembly elected by the people for 4 years.

In Quebec there is also a second chamber, called the Legislative Council, composed of nominees of the Provincial Government.

JUDICIAL SYSTEM. The judicial system consists of a supreme court in Ottawa (established in 1875), with appellate jurisdiction, and a supreme court in each province as well as county courts with limited jurisdiction in most of the provinces. The Governor General in Council appoints the judges of these courts.

DEFENSE. Canadian armed forces, consisting of the Army, Royal Canadian Air Force and the Royal Canadian Navy, are under the Ministry of National Defense. Conscription was in effect during World War II, but most of the nearly 300,000 men who saw overseas service were volunteers. Canadian casualties were 104,125, including 41,371 dead.

In 1951, the authorized strength of the army was 43,120; air force, 24,950; navy, 13,400. Increases were projected under a 3-year defense-expansion program. Canadian troops served in Korea. On Jan. 1, 1951, the navy had in active service one light aircraft carrier, 2 cruisers, 11 destroyers, 1 submarine, 6 frigates and numerous ancillary craft.

The Royal Canadian Mounted Police is the constabulary maintained by the Dominion Government. In 1949 it had a strength of about 3,900 men. Its duties include the enforcement of smuggling laws, suppression of traffic in drugs, protection of government buildings and dockyards, and counter-subversive work. It is the sole police force operating in the Northwest Territories and Yukon.

EDUCATION. Control of education was specifically delegated to the provinces by the British North America Act of 1867. Elementary schools in all provinces except Quebec are free, as is secondary education in most provinces. The supreme education authority in Quebec is a council of public instruction with two aides supervising the Roman Catholic and Protestant schools respectively. Fees paid by parents having children of school age help defray the cost of education. In the rest of the provinces the system is non-denominational, and education for the most part is compulsory for all children between the ages of 8 and 14. Of Canada's 18 universities, 6 are state-controlled and 12 are independent of provincial control. Leading universities are Toronto, which belongs to the first group, and McGill (Montreal), the second group.

VITAL STATISTICS. In 1950 the birth rate was 25.5 per 1,000 population and the death rate 9.0 per 1,000.

The immigration movement reached its peak in 1913, when 402,432 immigrants were enumerated. Immigration fell off sharply during World War I but rose in the postwar years to a peak of 167,723 in 1929. Immigration for 1950 totaled 73,912, of whom 12,669 came from the United Kingdom.

AGRICULTURE. Agriculture, including horticulture, fruit-growing and the raising of stock and poultry, is the largest single industry. Of the total land area, 549,660 square miles, or 15.2 per cent, consists of agricultural land. Canadian farming is based almost entirely on relatively small individual holdings. Canada is one of the world's greatest wheat-exporting countries; production is concentrated in Manitoba, Saskatchewan and Alberta. Canada is also a leading producer of other cereals, the most important in point of value being oats and barley.

CROP ACREAGE AND PRODUCTION

(In thousands)

	Acres		Bushels	
	1949	1950*	1949	1950*
Wheat	27,541	27,021	367,406	461,664
Oats	11,389	11,575	317,916	419,930
Barley	6,017	6,625	120,408	171,393
Rye	1,181	1,168	10,011	13,333
Corn	272	306	13,650	13,839

* Provisional.

Apple growing, carried on in Nova Scotia, southern Quebec and central Ontario, is the chief horticultural activity; other fruit growing regions are the Niagara and Lake Erie districts and southern British Columbia. Sugar beet cultivation is assuming increasing importance, and tobacco is produced in southern Ontario. The production of honey and maple sugar is also important. The estimated value of field crops in 1950 was $1,637,000,000.

Stock raising and dairy farming have grown greatly since 1920. Ontario and Quebec are the most important dairying provinces. On June 1, 1950, Canada had 8,992,000 cattle, 5,247,000 hogs and 2,015,000 sheep. Dairy production in 1950 included butter, 131,000 short tons; milk, 8,218,495 tons; cheese (cheddar), 48,150 tons. Wool production was 9,531,000 pounds, greasy basis.

INDUSTRY. Canadian manufactures rely mainly on domestic raw materials; growing industries which depend largely on materials imported in a raw or semi-finished state include the manufacture of automobiles, sugar and rubber goods as well as the iron and steel industry in Nova Scotia, Quebec and Ontario. The latter two provinces account for more than 80 per cent of all manufactures. The abundance of cheap water power is one of the chief factors in the growth of Canadian industry. Production of steel ingots and castings in 1950 was 3,384,131 tons; pig iron, 2,309,732 tons; ferroalloys, 181,575 tons. In 1949, the gross value of manufactured products was Can.$12,378,731,000; there were 33,447 plants which employed 1,156,006 persons in 1948. The most important industries by value of output were pulp and paper, meatpacking, nonferrous-metals smelting and refining, sawmills and electrical apparatus.

TRADE. Canada is one of the great trading nations of the world. The bulk of its foreign commerce is in raw or semi-finished products.

Trade statistics (in millions of Canadian dollars):

Year	Imports	Exports	Re-exports
1940	1,082.0	1,178.9	14.3
1941	1,448.8	1,621.0	19.5
1942	1,644.2	2,363.8	21.7
1943	1,735.1	2,971.5	29.8
1944	1,758.9	3,440.0	43.1
1945	1,585.8	3,218.3	49.1
1946	1,927.3	2,312.2	27.0
1947	2,573.9	2,774.9	36.9
1948	2,636.9	3,075.4	34.6
1949	2,761.2	2,993.0	29.5
1950	3,174.3	3,118.4	38.7
1951*	943.9	809.2	10.4

* First three months.

In 1950, Canada's principal customers were the U. S. (65%), Britain (15%), Belgium (2.1%), Union of South Africa (1.3%) and Australia (1.1%). Leading suppliers were the U. S. (67%), Britain (13%), Venezuela (2.7%), India (1.2%) and Mexico (1.0%). The leading exports were newsprint (15.2%), wheat (10.4%), planks and boards (9.3%), wood pulp (6.7%) and nickel (3.4%). Leading imports were machinery and vehicles (23%), petroleum and products (10%) and iron and steel and manufactures (8%).

COMMUNICATIONS. Because Canada's exports are to a large extent bulky raw materials, cheap water transportation is essential. The country's system of canals, especially those connecting the Great Lakes, forms an integral part of the inland communications system. Canal traffic amounted to 27,439,076 tons in 1950; 14,740,573 tons of freight were carried on the Welland Canal alone.

Railway facilities have been improved in relation to the export of wheat from the prairie provinces and to the development of the mineral and wood pulp industries in northern Quebec and northern Ontario. About 90 per cent of the Canadian railway length of 43,000 miles is under the control of two systems, the government-owned Canadian National and the privately-owned Canadian Pacific. Canada's principal merchant marine lines are the Canadian Pacific, which operates a subsidiary ocean steamship company, and the Canadian National, which has minor steamship lines under its control. The merchant marine on Dec. 31, 1950, numbered 1,315 steamers and motorships (of over 100 tons) with tonnage of 1,706,420.

On Dec. 31, 1948, Canada had 150,493 miles of surfaced highways and 405,773 miles of nonsurfaced roads. On April 3, 1946, Canada formally took over 1,500 miles of the Alaska highway. Motor vehicles licensed in 1949 numbered 2,290,628.

The Trans-Canada Air Lines, established in 1937, is controlled by the Dominion Government. In 1949, Canadian airlines carried 1,222,099 revenue passengers and flew 392,507,141 revenue passenger-miles. In 1950, Canada had 2,700,000 telephones and 2,145,819 licensed private radio sets.

FINANCE. Recent data are as follows (in millions of Canadian dollars):

	1949–50	1950–51*	1951–52†
Revenue	2,580.1	3,105.0	3,730.0
Expenditure	2,448.6	2,902.0	3,700.0

* Provisional. † Budget estimate.

The gross funded debt on March 31, 1951, was reported at $15,026,779,646, compared to $15,188,138,961 on March 31, 1950, and $6,013,000,000 on March 31, 1940. The net public debt on March 31, 1951, was $11,433,314,948.

TOPOGRAPHY. Covering the northern part of the North American continent and with an area larger than that of the United States, Canada's topography is extremely diversified. The northeastern region, including most of Quebec, northern Ontario and Manitoba, and the Northwest Territories, with Hudson Bay in the center, is an important source of minerals, wood pulp and water power. In the east the mountainous maritime provinces have an irregular coast line on the Gulf of St. Lawrence and the Atlantic. The St. Lawrence plain, covering most of southern Quebec and Ontario, and the interior continental plain, covering southern Manitoba and Saskatchewan and most of Alberta, are the principal cultivable areas. They are separated by a forested plateau rising from Lakes Superior and Huron. Westward toward the Pacific, most of British Columbia, Yukon, and part of western Alberta are covered by parallel mountain ranges including the Rockies. The Pacific border of the coast range is ragged with fiords and channels. The highest point in Canada is Mt. Logan, 19,850 ft., located in the Yukon.

CLIMATE. Canada has great variations of climate. South of the Gulf of St. Lawrence, the maritime provinces have an average temperature of 40° for the year and over 60° for the summer months. In Quebec and northern Ontario the winters are cold and the summers average from 60° to 65°. In southern Ontario the average summer temperature is 65°, with an occasional rise to 90°. The prairie provinces have a distinctly continental climate with comparatively short warm summers and long cold winters. The west coast has a climate similar to that of the southern coast of England. Northwest and northeast of Hudson Bay the climate is too severe for trees.

HYDROGRAPHY. Canada has an abundance of large and small lakes. In addition to the Great Lakes on the United States border, there are nine others which are more than 100 miles long and 35 which are more than 50 miles long.

The two principal river systems are the Mackenzie and the St. Lawrence. The St. Lawrence with its tributaries is navigable for over 1,900 miles and is the commercial artery of eastern Canada. The northern parts of Alberta and much of northern British Columbia are drained through the Athabaska and Peace Rivers, first northeastward toward Lake Athabaska and then north through Slave River to Great Slave Lake and finally northwest through the Mackenzie River to the Arctic Ocean. If measured to the head of Finlay River, the Mackenzie has a length of more than 2,500 miles and is navigable for 1,292 miles.

As most of the Canadian rivers have waterfalls on their courses they are of considerable importance as sources of power. Average monthly production of electricity in 1950 was 4,242,000,000 kwh.

MINERALS. Canada's mineral resources are both rich and varied. Mining production in 1950 was valued at $1,040,900,000. Metals come mainly from two widely separated regions, the mountain ranges of the Pacific coast and the province of Ontario. Copper ore also exists in Quebec, Manitoba and Newfoundland. Production of petroleum (29,145,900 barrels in 1950) centers in Alberta. There are important deposits of uranium in the Northwest Territories.

MAJOR MINERALS

Mineral	1949	1950*
Asbestos (tons)	574,906	877,650
Coal (tons)	19,120,046	19,000,000
Copper (lb.)	526,913,632	523,828,637
Gold (oz.)	4,123,518	4,430,612
Lead (lb.)	319,549,865	339,776,962
Nickel (lb.)	257,379,216	246,113,800
Silver (oz.)	17,641,493	22,416,150
Zinc (lb.)	576,524,097	622,450,891

*Provisional.

FORESTS, WILD LIFE AND FISHERIES. The total area of land covered by forests is estimated at 1,290,960 square miles, of which 435,000 are productive and accessible. Production of sawn lumber was estimated at 6,500,000,000 bd. ft. in 1950. The manufacture of pulp and paper is one of the leading industries. Newsprint production in 1950 was estimated at 5,278,000 tons; exports were 4,938,609 tons, of which 4,724,936 tons went to the U. S.

Fishing, Canada's oldest industry, is carried on along the Atlantic and Pacific coasts and on the inland lakes. The most important fish are salmon, cod, herring, mackerel, lobsters, sardines, halibut, haddock, whitefish and trout. The total value of fishery production in 1949 was $131,281,642; the catch totaled 13,177,057 cwt.

Fur farming and trapping is also important. Trapping is carried on principally in the North while Quebec, Ontario and Alberta lead in the number of fur farms. The more important animals raised on fur farms are fox, muskrat, beaver, mink, raccoon and martin. For the year ending June 30, 1949, 9,902,790 pelts valued at $22,899,882 were taken. Annual fur auctions are held at Montreal, Winnipeg, Vancouver, Edmonton and Regina.

FALKLAND ISLANDS AND DEPENDENCIES

Governor: Sir Miles Clifford.
Capital: Port Stanley (population 1,246).
Foreign trade (1949): exports, £4,011,966; imports, £1,998,409. Chief export: whale oil.

This sparsely inhabited Crown colony consists of a group of islands in the south Atlantic about 250 miles east of the South American mainland. Dependencies include all islands and Antarctic territory between 20° and 50° w. long., south of 50° s. lat., and between 50° and 80° w. long., south of 58° s. lat. The chief industry is sheep raising, and apart from the production of wool, hides and skins and tallow, there are no known resources. The whaling industry is carried on successfully from South Georgia Island; 169,203 barrels of whale oil were exported in 1949.

The islands were discovered by John Davis in 1592. East Falkland Island was claimed for France in 1764, and West Falkland Island for Britain the following year. The French settlement later passed to Spain, and in 1829 was colonized by Argentina. The Argentines were ejected by the British in 1833 and have since reasserted their claim to the islands many times, most recently in Feb., 1948. In 1914 the Battle of Falkland Islands was fought nearby, resulting in a British victory. During World War II, Stanley Harbour was an important naval base.

The climate is equable though relatively cold, with temperatures averaging about 47° in midsummer and 37° in midwinter.

JAMAICA AND DEPENDENCIES—Status: Colony.
Capital: Kingston (population 201,911).
Governor: Sir Hugh Foot.
Foreign trade (1950)*: exports, £15,104,290; imports, £22,596,345. Chief exports: sugar (40%), bananas, rum.
Agricultural products (1950): sugar (271,582 long tons), bananas (6,851,450 stems), citrus fruits, ginger, coffee, pimento.

* Excluding dependencies.

Jamaica, the largest island in the British West Indies (4,470 sq. mi.), is eighty miles south of the eastern end of Cuba. Its island dependencies include the Turks and Caicos Islands (about 600 mi. N.E.), Cayman Islands (about 300 mi. N.W.) and two uninhabited cays. It was discovered by Columbus in 1494 and remained in Spanish possession until 1655, when it was taken by the British. According to the constitution of Nov. 20, 1944, the Governor is assisted

by a House of Representatives of 32 popularly elected members; a Legislative Council (upper house) of 15 members and an Executive Council of 10 members, 5 of whom are elected by the House of Representatives.

Jamaican sites were leased for 99 years to the U. S. in 1940 for naval and air bases.

The colony's economy depends on agriculture, and about 200,000 acres are under cultivation. Sugar took the place of bananas as the chief crop during World War II. Jamaica is virtually the sole source of pimento. Manufacture of consumer's goods has increased considerably in recent years.

Rail mileage totals 299, and highways 4,594. Jamaica's favorable climate makes it attractive to tourists. Temperatures at Kingston range from about 71° to 88°, but are considerably cooler inland. The rainy seasons are in May and October.

LEEWARD ISLANDS—Status: Colony.
Capital: St. John's (population 10,000).
Governor: Kenneth W. Blackburne.
Foreign trade (1949): exports, BWI$8,849,651; imports, BWI$10,000,709. Chief export: sugar.
Agricultural products: sugar, cotton, coconuts, citrus fruits, tobacco.

The Leeward Islands constitute a federated group southeast of Puerto Rico; they are divided into four presidencies—Antigua (108 sq. mi.) and dependencies (63 sq. mi.); Virgin Islands (67 sq. mi.); St. Kitts (68 sq. mi.) and Nevis (50 sq. mi.) and dependency (34 sq. mi.); and Montserrat (33 sq. mi.). The whole federation has a nominated Executive Council and a partially elected Legislative Council. Each presidency also has a local administration. In 1940, the U. S. acquired a 99-year lease on sites for a naval and air base on Antigua. The islands are predominantly agricultural.

Temperatures average about 76° in January and 81° in August; rainfall is moderate throughout the year.

TRINIDAD AND TOBAGO—Status: Colony.
Capital: Port of Spain (population 105,744).
Governor: Maj. Gen. Sir Hubert Rance.
Foreign trade (1950): domestic exports, BWI$167,562,500; re-exports, BWI$10,029,700; imports, BWI$169,225,900. Chief exports: petroleum, sugar.
Agricultural products: sugar (1950: 146,508 long tons), cacao, coconuts.
Minerals (1950): petroleum (20,632,421 barrels), asphalt (121,850 long tons).

The islands of Trinidad and Tobago are 16 and 21 miles, respectively, off Venezuela just north of the Orinoco delta. Both were discovered by Columbus in 1498, and remained Spanish possessions until 1797, when the British took them. They are administered by a governor. In 1941 the United States was granted 99-year leases on the islands for naval and air bases covering a total of 25,000 acres.

The soil is rich for the growing of tropical products; sugar and cacao are the principal crops. Trinidad is the second leading oil producer of the Commonwealth, and the world's most notable source of asphalt, found in Pitch Lake, thirty-eight miles southeast of Port of Spain. Port of Spain is the chief port, and a transshipment point for Orinoco trade. About a third of the population is East Indian.

Trinidad's climate is tropical, with a mean annual temperature of 80°. The rainy season is from May to January (except October).

WINDWARD ISLANDS—Status: Colony.
Capital: St. George's (population 5,755).
Governor: Sir Robert D. H. Arundell.
Foreign trade (1949): exports, BWI$9,390,807; imports, BWI$16,188,809.
Agricultural products: arrrowroot (St. Vincent), nutmeg (Grenada), mace (Grenada), cacao.

These islands, four in number, form the southern portion of the Lesser Antilles in the Caribbean; they extend approximately 250 miles from the French colony of Guadeloupe on the north to the British colony of Trinidad on the south. Their total area of about 820 square miles divides as follows: Dominica, 304; St. Lucia, 233; St. Vincent, 150; Grenada, 133. The four units are not federated and have no common legislature or laws, although they do have a common governor.

More than two-thirds of the inhabitants are Negroes, nearly one-third mulatto, and about 2 per cent white. Agriculture is the only industry. St. Vincent has a virtual monopoly on the world supply of arrowroot, and Grenada furnishes about 40 per cent of the world's nutmeg.

All the islands are of volcanic origin. The climate is pleasant, although rainfall is heavy, particularly in summer. The temperature in January averages 77°, in September, 80°.

ASIA

ADEN—Status: Colony and Protectorate.
Governor: Tom Hickinbotham.
Foreign trade (1950): exports, Rs. 258,032,655; imports, Rs. 557,842,907.

The British colony and protectorate of Aden is situated on the volcanic southern tip of the Arabian peninsula, along the Gulf of Aden. The colony (port) of Aden was annexed to Britain in 1839 and was part of the Bombay Presidency until 1932, when it became a separate province with the chief commissioner responsible to the Indian government. In 1937 it was transferred from Indian to Imperial control as

a Crown colony. It is administered by a governor and commander in chief aided by an Executive Council. The 20-odd sultans who rule their respective territories in the protectorate are responsible to him.

The island of Perim (5 sq. mi.), the Kuria Muria islands, and the island of Kamaran (22 sq. mi.) are attached administratively to Aden.

Aden colony is essentially a transshipment point and bunkering station and is also the commercial center for the Yemen and the African coast opposite. Aden airport is a station on the Khartoum-Karachi air route. Agriculture is unimportant except for some coffee and tobacco, and manufactures are limited to salt, cigarettes and native dhows.

BAHREIN ISLANDS—Status: Protectorate and Sheikdom.
British Political Agent: C. J. Pelly.

These islands form an archipelago off Arabia's east coast and are nominally an independent sheikdom, ruled by Sheik Sir Salman bin Hamad al Khalifah, but are actually a protectorate of Great Britain, which is represented by a political agent. They are the center of the Persian Gulf pearl fisheries and the site of an airport on the London-Australia route. The concession for exploitation of petroleum deposits, discovered in 1932, is held by an affiliate of U. S.-owned interests. Output in 1950 was 11,015,711 barrels. Agriculture is of some importance. Most of the trade of the Saudi Arabian provinces of Nejd and Hasa pass through Bahrein. Chief exports are rice, cotton goods, pearls, coffee and tea. The capital and principal port is Manama (pop. 30,000) on Bahrein, the principal island.

BORNEO

COLONY OF NORTH BORNEO—Status: Colony.
Capital: Jesselton (population 36,028).
Governor: Sir Ralph Hone.
Foreign trade (1950)*: exports, Str.$92,007,001; imports, Str.$46,055,956. Chief export: rubber (65%).
Agricultural products: rubber (1950: 23,893 long tons), rice, corn.
Forest products: timber, cutch, rattans.
* Excluding transit trade.

The Colony of North Borneo, constituting the extreme northern portion of the island of Borneo, consists largely of highlands and occasional open valleys and plateaus. The territory was a British protectorate administered under a royal charter by the British North Borneo Company from 1881 until July 15, 1946, when it assumed the status of a Crown colony. It was occupied by Japanese troops from 1942 until 1945. Labuan (pop. 9,000; area, 30 sq. mi.), a small island off the North Borneo coast, was transferred from the jurisdiction of the Straits Settlements to that of North Borneo in 1946.

The population is comprised largely of aboriginal tribesmen living on a very primitive level of culture and social organization. Mineral resources are believed to be considerable, but the colony's income is based on agricultural and jungle produce.

The climate of North Borneo is tropical, with a mean annual temperature range of only 3°, although extremes of 64° and 91° have been recorded. The total rainfall varies between 60 and 180 inches annually and is heaviest in the last three months.

BRUNEI—Status: Protectorate.
Capital: Brunei (population 16,000).
Sultan: Omar Ali Saifuddin.
British Resident: E. E. F. Pretty.
Foreign trade (1949): exports, Str.$62,062,791; imports, Str.$35,835,170. Chief export: petroleum (95%).
Agricultural products: rice, rubber.

Brunei lies on the northwestern coast of Borneo, entirely surrounded by Sarawak. It was placed under British protection in 1888, and in 1906 a treaty was concluded whereby the native sultan yielded administration of the state to a British resident. The governor of Sarawak was appointed high commissioner for Brunei in 1948. Japanese troops occupied Brunei from 1942 until 1945.

Most of the inhabitants are Malays. The bulk of the population lives in and around the capital, situated on the Brunei River 9 miles from its mouth. The interior is largely forested and contains rich timber All petroleum is exported to Sarawak for refining (exports 1949: 3,200,440 long tons)

Brunei's climate is comparable to that of North Borneo, except that the wet season is longer, often lasting until March.

SARAWAK—Status: Colony.
Capital: Kuching (population 37,949).
Governor: Anthony F. Abell.
Foreign trade (1949): exports, Str.$187,628,559; imports, Str.$109,969,460. Chief export: petroleum (70%).
Agricultural products: rice, sago, pepper, rubber.
Minerals: petroleum, gold, silver, coal.

Sarawak extends along the northwestern coast of Borneo for about 500 miles. In 1841 part of the present territory was granted by the sultan of Brunei to Sir James Brooke. The state, enlarged by additional concessions made between 1861 and 1905, continued to be ruled by members of the Brooke family until the Japanese occupation in Dec., 1941. A British protectorate since 1888, Sarawak became a Crown colony July 15, 1946, through agreement between the British government and the then ruling rajah, Sir Charles Vyner Brooke.

The colony is mountainous and very well

watered; inland communication is largely by water. Most of the inhabitants are Malays, Dyaks and Chinese. The principal mineral is petroleum, which was discovered at Miri in 1909 and subsequently worked by Sarawak Oilfields, Ltd. A large proportion of the petroleum exports reflects petroleum imported from Brunei and refined in Sarawak. There are also important forest resources. Under the enlightened rule of the Brookes, Sarawak had been developed into a highly organized community prior to the Japanese invasion.

Sarawak's climate, though tropical, is healthful; the temperature seldom rises above 90° and falls to 70° at night. Average annual rainfall at Kuching is 160 inches.

Ceylon (Dominion)

Area: 25,332 square miles.
Population (est. June 30, 1950): 7,550,000 (Sinhalese, 68%; Tamil, 22%; Moors, 6%; Burghers and Eurasians, .5%; Europeans [5,292] and others, 3.5%).
Density per square mile: 296.1.
Governor General: Lord Soulbury.
Prime Minister: Stephen Senanayake.
Principal cities (est. 1950): Colombo, 387,900 (capital); Jaffna, 68,400 (fibers, tobacco); Dehiwala–Mt. Lavinia, 65,700 (suburb of Colombo); Kandy, 56,200 (tea).
Monetary unit: Ceylonese rupee.
Languages: English, Sinhalese, Tamil.
Religions (est.): Buddhism, 60%; Hinduism, 20%; Christianity, 10%; Mohammedanism and others, 10%.

HISTORY. The youngest dominion in the British Commonwealth, the island of Ceylon lies in the Indian Ocean 12 miles southeast of the southern tip of India at the closest point of proximity. Known to the Greeks and Romans as Taprobane and to Mohammedan seamen as Serendib, it is reputed to have been invaded from India in 504 B.C. by Vijaya, the first Sinhalese king. Buddhism was introduced in the third century B.C. In subsequent centuries the island was invaded and occupied several times by Indian princes.

Ceylon was visited in 1505 by the Portuguese, who found the island divided into seven native kingdoms. The Portuguese settlers were ousted in the middle of the 17th century by the Dutch, who in turn were defeated by an English force in 1796. Ceylon became a Crown colony in 1796, and was formally ceded to England by the treaty of Amiens in 1802.

The Donoughmore constitution of 1931 vested control over most local affairs in a state council, which had an elected majority. The arrangement proved generally unacceptable, and after World War II a commission headed by Lord Soulbury drafted a new constitution. Elections held in Aug. and Sept., 1947, were won by the United Nationalists, a center group. The Ceylon Independence Act received royal assent on Dec. 10, 1947, and on Feb. 4, 1948, Ceylon became a full-fledged, self-governing dominion.

GOVERNMENT. Under the new constitution, Ceylon's government is headed by the Crown-appointed governor general, who is advised by a council of ministers headed by the prime minister. The bicameral parliament consists of a House of Representatives of 95 members elected by full adult suffrage, and a Senate composed of 15 elected and 15 appointed members.

Close relations in defense matters are maintained with the United Kingdom under terms of the 1947 defense agreement, which permits the stationing of British troops on the island. The Royal Navy has an extensive base at Trincomalee.

SOCIAL AND ECONOMIC CONDITIONS. Free education is available in public schools from kindergarten to university, and the level of literacy is high. In 1948 there were 6,231 Sinhalese and Tamil schools, with 1,181,430 pupils, and 523 English and bilingual schools, with 229,064 pupils. The University of Ceylon (founded in 1942) had 1,850 students in 1949–50.

Sinhalese, spoken by approximately two-thirds of the population, is an Aryan tongue closely related to Pali.

Ceylon is heavily dependent on food imports, particularly rice, the staple food. A large part of the cultivated land (25% of the total area) is devoted to the chief export crops—tea (1950: 138,873 metric tons), rubber (115,302 metric tons) and coconut products, all of which are grown for the most part on plantations. Other crops include rice (294,648 tons paddy), fruits, cinnamon and citronella. In 1950, there were 1,105,447 cattle, 522,418 buffalo and 370,091 goats.

Recent foreign-trade data are as follows (in millions of Ceylonese rupees):

	1948	1949	1950
Exports	1,011	1,063	1,563
Imports	994	1,030	1,169

Chief exports by value in 1950 were tea (48%), rubber (26%) and coconut products (16%). Leading customers were Britain (24%), the U. S. (21%) and Australia (7%); leading suppliers, Britain (19.7%), Burma (19.4%), and India (15%).

Ceylon is well served by highways and the government railway, which total 18,560 and 894 miles respectively. A fast ferry connects railheads in India and Ceylon.

Recent financial data are as follows (in millions of Ceylonese rupees):

	1948–49	1949–50	1950–51*
Revenue	576.1	623.3	672.2
Expenditure	547.9	563.2	582.2

* Budget estimate.

The net public debt on Sept. 30,1950, was 441,713,000 rupees.

NATURAL FEATURES AND RESOURCES. Most of the island is flat, but mountains in the south central part rise to 8,000 feet. The island extends to a maximum of 270 miles north and south, and 140 miles east and west. There are numerous rivers, the longest of which is the Mahaweli-Ganga (206 miles).

Mineral resources include graphite (plumbago) (1949 exports: 12,434 metric tons), gem stones, mica, magnesite and vanadium; uranium deposits have been reported.

A distinctive feature of Ceylon's climate is the monsoon, which appears in May and in October–November. Annual rainfall varies from 40 inches in the northeast to more than 200 in the southwest. The mean annual temperature at Colombo is 80.5°.

MALDIVE ISLANDS. These islands, a group of 12 coral atolls, are a Ceylonese dependency located about 400 miles to the southwest. The population, almost entirely Mohammedan, is about 100,000. Under the hereditary sultan, Amir Abdul Majid Didi, the Maldives have a popular government headed by a prime minister. Fishing and coir making are the leading industries.

CYPRUS—Status: Colony.
Capital: Nicosia (pop. 1950: 38,195).
Governor: Sir Andrew B. Wright.
Foreign trade (1950): exports (including re-exports), £11,059,039; imports, £13,474,290. Chief export: copper concentrates.
Agricultural products: barley, wheat, potatoes, wine, fruit.
Minerals: copper ore (concentrates), pyrite ore.

Cyprus, third largest island in the Mediterranean, is roughly equidistant from Asia Minor to the north and Syria to the east. The site of early Phoenician and Greek colonies, it passed in 1571 from the rule of Venice to that of the Ottoman Empire, under which it remained until 1878, when it was ceded to Great Britain for administrative purposes. On the outbreak of hostilities with Turkey in World War I (Nov. 5, 1914), the island was formally annexed to Great Britain.

The governor is advised by a nominated Executive Council, but he alone possesses the lawmaking power.

Jewish refugees who attempted illegal entry into Palestine during 1946 and 1947 were shipped to Cyprus by the British for internment.

The people are mainly Greeks and Turks, although there is an Armenian colony and a distinct, though small, Latin colony. More than 80 per cent of the population is Christian. Agriculture is the principal industry. Sponge fishing is also important, as well as copper mining.

The mean annual temperature is about 69°; annual rainfall averages about 19 inches. A cool, wet season lasts from October to March.

HONG KONG—Status: Colony.
Capital: Victoria (population 767,000).
Governor: Sir Alexander Grantham.
Foreign trade (1950): exports (in Hong Kong dollars), $3,715,552,000; imports, $3,787,662,000. Chief export: textiles.
Agricultural products: rice, sugar cane.
Major industries: shipbuilding, rope making, cement, sugar refining, textiles.

The colony of Hong Kong comprises the island of Hong Kong (32 sq. mi.), Stonecutters' Island, and the Kowloon peninsula and the New Territories on the adjoining mainland. The island of Hong Kong, located at the mouth of the Canton River about 90 miles southeast of Canton, was ceded to Britain in 1841.

Stonecutters' Island and Kowloon were annexed in 1860, and the New Territories, which are mainly agricultural lands, were leased from China in 1898 for 99 years. Hong Kong was attacked by Japanese troops Dec. 7, 1941, and surrendered the following Christmas Day. It remained under Japanese occupation until Sept., 1945.

Possessing an excellent natural harbor 17 miles in extent, the only safe deep-sea anchorage between Shanghai and Indo-China, Hong Kong is the entrepôt for trade throughout southern China and the western Pacific. Re-exports normally constitute about two-thirds of the imports and nine-tenths of exports. The colony is also an important British military and naval base.

The cities of Victoria and Kowloon contain the greater part of the population, which is overwhelmingly Chinese. Besides those Chinese engaged in agriculture or industry, a large population lives in sampans or junks either in Victoria Harbour or neighboring bays, supporting itself by fishing or by laboring on the wharves. About 20 per cent of the total area of Hong Kong is under cultivation, mostly in the New Territories. Manufacture of consumer's goods, both for local consumption and for export, is also important.

Hong Kong has an agreeable climate, although violent typhoons sometimes descend upon the colony. The average annual temperature is 72°, ranging from 59° in February to 82° in July. The summer is the rainy season.

MALAYAN FEDERATION and SINGAPORE—Status: Protectorates and Crown Colony.
Capital: Singapore (population 1947: 441,885).
Federation Capital: Kuala Lumpur (population 1947: 176,195).
Commissioner General in Southeast Asia: Malcolm MacDonald.
High Commissioner of Malayan Federation: Sir Henry Gurney.

Governor of Singapore: Sir Franklin Gimson.
Foreign trade (1950): exports, Str.$4,015,847,000; imports, Str.$2,915,075,000. Chief exports: rubber (61%), tin (12%).
Agricultural products: rubber (1950: 694,089 long tons), rice, coconuts.
Minerals: tin ore (1950: 57,537 long tons), iron ore (498,903 tons), tungsten, bauxite, manganese ore.
Forest products: timber, damar, jelutong.

British Malaya consists of semi-independent states occupying most of the Malay peninsula and the island of Singapore off the peninsula's southern tip, together with several smaller islands. The native states were brought under British administration by a process of commercial and political exploitation in the late 19th and early 20th centuries. Singapore, founded in 1819 by Sir Stamford Raffles, had been developed into the principal British naval base in the Far East prior to World War II. Japanese troops invaded the Malayan States in December, 1941, and captured Singapore from the mainland February 15, 1942.

By Orders in Council effective April 1, 1946, the Malayan Union was formed from —the former "Federated Malay States" Perak, Pahang, Selangor, Negri Sembilan —the former "Unfederated Malay States" —Johore, Trengganu, Kelantan, Kedah and Perlis—and all parts of the former "Straits Settlements" except Singapore—thus including Penang and Malacca. The small island of Labuan, off Borneo, was transferred to jurisdiction of North Borneo. The Crown colony of Singapore, comprising the island of Singapore and its dependencies—the Cocos or Keeling Islands, and Christmas Island (about 200 miles south of Japan)—remains outside the Malayan Union.

After vigorous opposition, this arrangement was modified on Feb. 1, 1948, and the Malayan Union was replaced by the Malayan Federation, which has a federal executive and a federal legislative council presided over by the high commissioner. British influence in the affairs of the nine native states is limited to defense and foreign affairs. The sultan of each state has undertaken to promulgate a written constitution for his state. Singapore remains a Crown colony.

The Commissioner General in Southeast Asia is charged with the coordination of administration in the Malayan Federation, Singapore, Sarawak, North Borneo and Brunei.

Since June, 1948, a considerable number of British and other troops have had to be stationed in the area to cope with Communist-led guerrillas. About 50 per cent of the population of the Federation is Malayan and 38 per cent Chinese; about 70 per cent of the population of the colony of Singapore is Chinese.

Rubber and tin form the basis of the area's prosperity. Over 60 per cent of the cultivable area is devoted to the growing of rubber, and prewar production accounted for 40 per cent of the world supply. Production recovered rapidly after the war. In 1940 Malaya produced 33.2 per cent of the world's output of tin; postwar recovery of the industry was slower than in the case of rubber, although by 1949 Malaya was again the world's chief producer.

The climate of Singapore, principal city of the area, is hot and humid, with practically no seasonal change; mean average temperature is 80°. The average number of rainy days is about 173.

India (Republic)

Area: 1,220,099 square miles (including Kashmir, 82,258 square miles).
Population (census 1951)* 356,891,624.† (Hindu [predominant], Moslem, Sikh, Christian, Buddhist).
Density per square mile: 313.7.‡
President: Rajendra Prasad.
Prime Minister: Pandit Jawaharlal Nehru.
Principal cities (census 1951)*: Bombay, 2,840,011 (seaport; cotton and textiles); Calcutta, 2,549,790 (chief port); Madras, 1,429,985 (seaport); Hyderabad, 1,085,074 (trade center); Delhi, 914,634 (capital); Ahmedabad, 788,310 (manufacturing); Bangalore, 726,170 (manufacturing); Kanpur (Cawnpore), 704,536 (textiles).
Monetary unit: Rupee.
Principal languages: English (official), Hindi, Marathi, Gujarati, Punjabi, Telugu, Bengali, Tamil, Kanarese.

* Provisional. † Excluding Kashmir (est. 1950: 4,370,000) and tribal areas of Assam (est. 1951: 500,000). ‡ Excluding Kashmir.

HISTORY. The Republic of India is one of the largest, richest and most populous nations in the world. A sovereign republic within the Commonwealth of Nations, it contains most of pre-1947 India's industrial wealth and natural resources.

The Aryans or Hindus who invaded India between 2400 and 1500 B.C. from the northwest found a land already well civilized. Buddhism, founded in the 6th century B.C., had spread through northern India. The first exact date in Indian history is 327 B.C., the year that Alexander the Great invaded India. Meanwhile India continued to be divided into scores of rival states.

In 1526, Mohammedan invaders founded the great Mogul empire, centered on Delhi, which lasted at least in name until 1857. Akbar the Great (1542–1605) strengthened this empire and became the ruler of a greater portion of India than had ever

POLITICAL SUBDIVISIONS OF REPUBLIC OF INDIA, 1951

Provinces	Area, sq. mi. (approx.)	Population, census 1951
Assam	49,473	9,129,442*
Bihar	70,368	40,218,916
Bombay	111,394	35,943,559
Madhya Pradesh	130,475	21,327,898
Madras	127,610	56,952,332
Orissa	59,869	14,644,293
Punjab	35,684	12,638,611
Uttar Pradesh	112,523	63,254,118
West Bengal	28,215	24,786,683
States and Unions of States		
Hyderabad	82,313	18,652,964
Kashmir	82,258	4,370,000†
Madhya Bharat	46,273	7,941,642
Mysore	29,458	9,071,678
Patiala and East Punjab	10,119	3,468,631
Rajasthan	128,356	15,297,979
Saurashtra	31,885	4,136,005
Travancore-Cochin	9,155	9,265,157
Centrally administered areas		
Ajmer-Merwara	2,400	692,506
Bhopal	6,921	838,107
Bilaspur	453	127,566
Coorg	1,593	229,255
Cutch	8,461	567,825
Delhi	574	1,743,992
Himachal Pradesh	11,254	989,437
Manipur	8,620	579,058
Tripura	4,049	649,930
Vindhya Pradesh	24,610	3,577,431
Territories and other areas		
Andaman and Nicobar Islands	3,143	30,963
Sikkim‡	2,745	135,646

* Excluding tribal areas with estimated population of 560,000. † Estimated population 1950; status in dispute with Pakistan. ‡ Himalayan state under Indian protection.

before acknowledged the suzerainty of one man. The long reign of his great-grandson, Aurangzeb (1658–1707) represents both the culmination of Mogul power and the beginning of its decay.

Vasco da Gama, the Portuguese explorer, visited India first in 1498, and for the next hundred years the Portuguese had a virtual monopoly on trade with the subcontinent. Meanwhile, the English founded the East India Company, which set up its first factory at Surat in 1612 and began expanding its influence, fighting against the Indian rulers and the French, Dutch and Portuguese traders simultaneously.

Bombay, taken from the Portuguese, became the seat of English rule in 1687. The defeat of French and Mohammedan armies by Lord Clive in the decade ending in 1760 laid the foundation of the British Empire in India. From then until 1858, when the administration of India was formally transferred to the British Crown following the great mutiny of native troops in 1857, the East India Company was constantly occupied with the suppression of native uprisings and the extension of British rule.

After World War I, in which even the Mohammedan states of India sent troops to fight beside the Allies, Indian nationalist unrest rose to new heights under the leadership of a little Hindu lawyer, Mohandas K. Gandhi, called Mahatma Gandhi. His tactics, of a politico-religious nature, called for non-violent revolts against British authority. He soon became the leading spirit of the all-India Congress Party, which was the spearhead of Indian revolt against British rule. In 1919 the British gave added responsibility to Indian officials, and by an act passed in 1935 India was given a federal form of government and a measure of self-rule.

During the 1940's the policy of both the wartime coalition government of Britain and later the Labour Government envisaged an unpartitioned India as a self-governing federal dominion including both British India and the native states. In 1942, with the Japanese pressing hard on the eastern borders of India, the British war cabinet decided to send Sir Stafford Cripps to India to try to reach a political settlement with nationalist leaders. The mission failed. Shortly thereafter the Congress Party took the position that the British must quit India. In August 1942, fearing mass civil disobedience, the Government of India carried out widespread arrests of Congress leaders including Gandhi, Jawaharlal Nehru and Maulana Abul Kalam Azad, president of the Congress Party. Sections of the nationalist movement, mostly under the leadership of the socialist wing, went underground.

Gandhi was released in May, 1944, and other leaders later. Negotiations for a settlement were resumed and they proved fruitless until the British Labour Government sent a cabinet mission to India in 1946 consisting of Lord Pethick-Lawrence, A. V. Alexander and Cripps. The mission obtained the agreement of the Congress Party and Mohammed Ali Jinnah's Moslem League to a long-term plan for a constitution based on three separate groups of provinces with a minimal center. However, agreement was not reached on an interim government and the Moslem League later reverted to its position of unconditional partition. Finally, in February, 1947, the Labour Government announced its deter-

mination to transfer power to "responsible Indian hands" by June, 1948, even if a constitution had not been worked out by that time.

With the appointment at the same time of Lord Mountbatten as Governor General, events moved swiftly. By early June, 1947, agreement was reached on the partitioning of India along religious lines (a plan previously opposed by the predominant Hindus and by Britain) and on the splitting of the provinces of Bengal and the Punjab, which the Moslems had claimed in their entirety.

The Indian Independence Act, passed quickly by both houses of the British Parliament, received royal assent on July 18, 1947, and on Aug. 15 the Indian Empire, united under British rule for almost a century, passed into history.

Under the leadership of Pandit Jawaharlal Nehru, the new nation quickly took its place in world councils as a self-governing British dominion. At home it pursued a policy of integration and reorganization designed to place effective power in the hands of the central government, which was faced at the outset by widespread communal rioting climaxed by the assassination of Gandhi, the great Hindu spiritual leader, on Jan. 30, 1948.

GOVERNMENT: Since Jan. 26, 1950, India has been a sovereign republic within the Commonwealth of Nations—a status approved by the other Commonwealth nations at London in April, 1949, on the condition that India recognize the King as head of the Commonwealth. Under the constitution adopted by the Constituent Assembly on Nov. 26, 1949, India has a parliamentary type of government. The bicameral parliament is composed of the Council of States (250 members chosen by the constituent states) and the House of the People (not more than 500 members elected directly by popular vote for five-year terms). The president is elected for a five-year term by an electoral college composed of parliament and the elected members of the state legislatures. The cabinet, headed by the prime minister, administers the government and is collectively responsible to the House of the People. The constituent states have their own governors and popularly elected legislatures.

NATIVE STATES. Most of the 560-odd native states and subdivisions of pre-1947 India acceded to the new nation, and the central government pursued a vigorous policy of integration. This took three forms: (1) merger into adjacent provinces (230 states with an area of 110,700 sq. mi. and a population of 18,200,000), (2) conversion into centrally administered areas (8 states), and (3) grouping into unions of states (304 states with an area of over 236,000 sq. mi. and population of 37,600,000) of which there are six, in addition to the single states of Hyderabad, Mysore and Kashmir. The unions of states and the latter three states have been assimilated to the level of provinces, and have fully representative forms of government, subject to the power of the central government.

The status of the large princely state of Jammu and Kashmir on the northwest frontier is in dispute with Pakistan. It is 85 per cent Moslem, but its Hindu ruling prince acceded to India, which took over administration following invasion by Moslem troops in late 1947. The U. N. Security Council voted on April 21, 1948, to hold a plebiscite in the area, but by mid-1951, largely because of mutual distrust between India and Pakistan, arrangements had not been made for holding it.

The most important former princely state, Hyderabad, was forcefully taken over by Indian troops in Sept., 1948.

DEFENSE. In the division of the British Indian Army after the transfer of power, India received 45 regiments approximating 250,000 men. Plans were announced late in 1950 to reduce the strength of the then 300,000-man army, the reduced force to be highly mobile.

The division of the Royal Indian Air Force gave India 1 transport and 7 fighter squadrons. The Indian navy has 1 cruiser (ex-H.M.S. *Achilles*), 3 destroyers, 4 sloops, 2 frigates, 12 minesweepers and several smaller vessels. Almost all the senior officers in the three services are now Indian.

EDUCATION. Plans were under way in 1951 for large-scale expansion and modernization of all branches of education, with emphasis on technological training. Detailed data, however, were not available. In 1948 there were 17 universities. English is being replaced as the language of instruction by Indian languages.

AGRICULTURE. Over 200,000,000 acres are under cultivation, but India probably will continue to be a food-deficit area for several years. Rice is the staple food crop; cotton, tea and jute are important cash crops. Final production estimates for the crop year 1949–50 included rice, 21,913,000 long tons; sugar cane, 4,904,000 tons; wheat, 6,110,000 tons; sesame, 403,000 tons; cotton, 2,165,000 bales of 400 lb. each; jute, 3,089,000 bales of 400 lb. each; tea, 500,000,000 lb.

In 1950 there were 181,500,000 cattle and 39,000,000 sheep; in 1945 (within present area), 556,000 horses, 46,469,000 goats, 40,610,000 buffalo and 193,000 camels.

MANUFACTURING. The republic retained almost all the industrial facilities of British India and is among the ten leading industrial nations of the world. Cotton

and jute manufacturing are the two largest industrial activities, the former concentrated largely in Bombay and the latter in Calcutta. The provinces of West Bengal and Bombay are the two most important areas of industrial concentration, with Madras ranking third in importance. In 1950, upwards of 850 cotton mills produced 1,174,000,000 lb. of yarn and 3,665,000,000 yards of cloth. Processing of sugar is of great importance; in 1950, 142 factories produced 976,000 tons. About 90 per cent of the world's supply of jute is processed in the republic. The annual steel capacity is 1,264,000 tons, of which the huge Tata Works in Bihar account for 850,000. Total production in 1950 was 1,610,000 short tons; that of pig iron and ferroalloys, 1,875,000 short tons. The production of silk and woolen goods, vegetable oils, coir yarn, paper, matches, salt, cement, leather and shoes, and heavy chemicals is also important.

COMMUNICATIONS. The division of the British Indian railway system gave the republic 33,865 miles of track, all under government control. The chief ports are Bombay and Calcutta. According to *Lloyd's Register*, the merchant marine had 177 steamers and motor ships (100 tons and over) aggregating 420,328 gross tons on June 30, 1950. Roads in 1948 totaled 296,438 miles. In 1949, seven airlines operated 22,092 miles of internal air service and three overseas services.

TRADE. India is primarily an importer of finished manufactured goods and an exporter of raw materials and semimanufactured products. Recent trade data are as follows (in millions of rupees):

	1948–49	1949–50	1950–51*
Exports	4,537	5,032	5,963
Imports	6,724	5,980	6,038

* Provisional figures.

The leading customers in 1950–51 were Britain (22%), the U. S. (18%), Australia (5%), Pakistan (5%) and Burma (4%). Leading suppliers included Britain (20%), the U. S. (19%), Pakistan (7%) and Iran and Australia (each 6%). Leading exports were cotton manufactures and yarns (23%), jute and jute manufactures (20%) and tea. Leading imports included raw cotton and waste, machinery, grain, pulse and flour.

MINERALS. The republic has rich mineral resources. The most valuable mineral is coal, deposited throughout most of the nation; production in 1950 was 35,759,000 tons. Manganese ore (551,800 tons in 1949) is mined in Madhya Pradesh, and gold in Orissa. Assam and the Punjab produce oil. Other minerals include iron ore, monazite, diamonds, magnesite, uranium, zircon, silver, graphite, gypsum, tungsten ore and sapphires.

FINANCE. The 1951–52 budget on revenue account estimated revenue at Rs. 4,018,900,000, expenditure at Rs. 3,757,900,000. The budget on capital account estimated revenue at Rs. 653,800,000, expenditure at Rs. 1,432,100,000, the estimated overall deficit being Rs. 518,800,000. The public debt on March 31, 1951, was about Rs. 20,886,100,000, most of which was held internally.

TOPOGRAPHY. Occupying the center of the Indian subcontinent, the main part of the republic is shaped somewhat like an arrowhead, with the tip located at the south. In the northern section are the Himalayas, south of which lie extensive plains drained by the Ganges and Brahmaputra river systems. The republic contains a large part of the great Indo-Gangetic plain which extends from the Bay of Bengal on the east to the Afghan frontier and the Arabian Sea on the west. This plain is the richest and most densely settled part of the subcontinent, containing more than half the population. Another distinct natural region is the Deccan, a plateau of 2,000 to 3,000 feet elevation, occupying the southern or peninsular portion of the subcontinent. In several regions, the Deccan is quite mountainous.

Forming a part of the republic are several groups of islands—the Laccadives (14 islands totaling about 80 sq. mi.) in the Arabian Sea; the Andamans (204 islands totaling 2,508 sq. mi.); and the Nicobars (19 islands totaling 635 sq. mi.) in the Bay of Bengal.

India's three great river systems, all rising in the Himalayas, have extensive deltas. The Ganges flows south and then east for 1,540 miles across the northern plain to the Bay of Bengal; part of its delta, which begins 220 miles from the sea, is within the republic. The Indus, starting in Tibet, flows northwest for several hundred miles in Kashmir before turning southwest toward the Arabian Sea; it is important for irrigation in Pakistan. The Brahmaputra, also rising in Tibet, flows eastward first through India and then south into Pakistan and the Bay of Bengal.

CLIMATE. India's climate varies from temperate in the north to tropical in the south, where temperatures are almost constant the year around. During the November–February cool season, northern India has a climate like that of the Riviera. From March to June steadily rising temperatures reach a peak sometimes as high as 115°, and then comes the southwest monsoon. Rainfall is heavy in most of the Union, averaging 50 to 60 inches in Assam and reaching 500 inches in the Assamese Garo hills.

Pakistan (Dominion)

Area: 337,524 square miles.*
Population (census 1951)†: 75,687,000 (Moslem [about 80%], Hindu, Sikh).
Density per square mile: 224.2.
Governor General: (News record).
Prime Minister: (See *News Record*).
Principal cities (census 1941): Lahore, 671,659 (Punjabi manufacturing center); Karachi, 359,492 (capital); Dacca, 213,218 (capital, East Pakistan); Rawalpindi, 181,169 (military center); Multan, 142,768 (Punjabi trading center).
Monetary unit: Pakistani rupee.
Principal languages: English, Bengali, Punjabi, Urdu, Hindi.

* Unofficial estimate. † Provisional.

HISTORY. Pakistan, a self-governing dominion of the Commonwealth of Nations and one of the two successor states to British India, is the world's largest and most important Moslem state.

The history of Pakistan prior to 1947 is principally that of India. (*See* India.) Its creation was to a large extent attributable to Mohammed Ali Jinnah, who envisaged and pressed for the idea of a predominantly Moslem state carved out of the Moslem areas of British India. Upon the transfer of power on Aug. 15, 1947, Jinnah became the first governor general; he died on Sept. 11, 1948, and was succeeded by Khwaja Nazimuddin, then prime minister of eastern Pakistan.

GOVERNMENT. Pending the promulgation of a definitive constitution, Pakistan has a provisional government which is federal in nature. The governor general represents the Crown and is advised by the prime minister and his cabinet, who are responsible to the constituent assembly, which has both legislative and constitution-making powers. The provincial legislatures enjoy autonomy in certain fields; the provincial governors are appointed by the governor general on advice of the dominion cabinet.

PROVINCES. Pakistan consists of two large sectors approximately 1,000 miles apart, separated by the Republic of India: in the northwest, Sind, Baluchistan, the North-West Frontier Province, western Punjab, the princely state of Bahawalpur, and a few other small native states; in the northeast, eastern Bengal and the Sylhet district of Assam. It contains large communal minorities of Hindus and Sikhs. Over half the dominion's population is concentrated in east Bengal, which contains only 15 per cent of the total area.

DEFENSE. In the division of the British Indian Army, Pakistan received 20 regiments, which, with levies and contributions of native princes, made a total army strength of about 250,000 in 1949. The Royal Pakistan Navy has a force of 3 destroyers, 2 sloops, 2 frigates, 6 mine sweepers and several smaller vessels. The air force has 1 transport and 2 fighter squadrons. The armed forces have several hundred British officers in dominion service.

SOCIAL AND ECONOMIC CONDITIONS. Literacy was barely 13.2 per cent, according to the 1951 census. In 1950, it was reported that there were 38,453 primary schools, 4,963 secondary schools, 1,649 high schools and 3 universities.

Pakistan, poor in industry and natural resources, is mainly an agricultural nation. Upwards of 45,000,000 acres are under cultivation, almost half of which are irrigated, largely in Sind and west Punjab in western Pakistan. The Punjab contains important wheat-growing areas, and eastern Pakistan is rich in jute, rice and tea. Production estimates for the crop year 1949–50 included wheat, 4,169,000 metric tons; rice, 12,403,000 tons (paddy); maize, 665,000 tons; barley, 182,000 tons; tea, 33,500,000 lbs.; jute, 820,000 tons; cotton (ginned), 208,000 tons; sugar (raw), 1,035,000 tons. Wool production in 1949 was about 12,000 tons (greasy). In 1947–48 there were 24,296,000 cattle, 6,145,000 sheep, 5,600,000 buffalo, 454,000 camels and 470,000 horses.

Pakistan is an exporter of agricultural products and an importer of manufactured commodities. Leading exports include raw jute, cotton, wool and hides; imports include cloth, iron and steel products and coal. Exports in the trade year 1950–51 were estimated at Rs. 2,210,000,000, imports at Rs. 1,481,000,000.

Development of a unified nation is retarded by the fact that communication between east and west Pakistan is possible only through a thousand miles of Indian territory or by a long sea voyage. In the division of the British Indian railways, Pakistan received 6,659 miles of track. Western Pakistan has an estimated road mileage of 46,000, about half of which is suitable for motor traffic. Eastern Pakistan has few roads for motor vehicles, but there are about 2,800 miles of waterways navigable by small steamers. On Dec. 31, 1948, the merchant marine had 19 vessels aggregating 87,703 gross tons. Karachi, the chief port, is the distribution center for north India and has the most important airport on the subcontinent. Chittagong is being developed as a port for eastern Pakistan.

Pakistan's industries supply only a small part of the dominion's requirements. The most important manufacturing area is in the vicinity of Lahore in the Punjab. Industries include cotton ginning, spinning and weaving, sugar refining, cement making, flour milling, railway and engineering workshops and two petroleum refineries.

Mineral resources are limited. Production in 1950 included petroleum, 185,000 short tons; coal and lignite, 488,500 tons; chromite (1948), 18,000 tons; gypsum (1949), 18,000 tons.

The preliminary budget for the fiscal year 1951–52 (which includes the railway budget) estimated revenue at Rs. 1,598,500,000 and expenditure at Rs. 1,391,100,000.

TOPOGRAPHY AND CLIMATE. Almost all of Sind and the west Punjab are a continuation of north-central plains leading up to rugged mountains in the north and west which traverse Baluchistan and the North-West Frontier Province. Eastern Pakistan is a low-lying, flat country with elevation averaging not more than 600 feet above sea level.

Numerous rivers flow southward into western Pakistan from the Himalayas; the greatest one, the Indus, enters the Arabian Sea near Karachi. Many barrages form the basis of artificial irrigation systems; land outside the reach of river water is either desert or semiarid. Several rivers with numerous branches cover eastern Pakistan and provide natural irrigation; the area includes part of the Ganges delta.

Western Pakistan has a brisk, cool season between November and March, with average mean temperature of about 60°, and an extremely warm period between April and November, with an average mean of 85°. Rainfall averages about 10 inches a year, of which Sind may receive as little as 6.3 in. Eastern Pakistan is within the range of the summer monsoon, with average annual rainfall of 85 in. The average maximum temperature varies between 75° and 100° during April to June; the minimum, between 45° and 60° during November to January.

OCEANIA

Australia, Commonwealth of (Dominion)

Area: 2,974,581 square miles.
Population (est. June 30, 1950): 8,185,539 (excluding full-blooded aborigines, estimated at 50,000).
Density per square mile: 2.8.
Governor General: William John McKell.
Prime Minister: Robert Gordon Menzies.
Principal cities (est. 1950): Sydney, 1,549,590 (seaport, wool market); Melbourne, 1,326,400 (seaport; wool, wheat); Brisbane, 444,650 (seaport, industrial center); Adelaide, 422,000 (seaport); Perth, 369,000 (western seaport); Canberra, 19,000 (capital).
Monetary unit: Australian pound (£A).
Language: English.
Religions (census 1947): Anglican, 39.0%; Roman Catholic, 20.7%; Presbyterian, 9.8%; Methodist, 11.5%; other Christians, 7.1%; others, 11.9%.

HISTORY. Australia was the last continent to be discovered. The first Europeans to land were the Dutch, who sailed into the Gulf of Carpentaria in March, 1606. Later in the same year, Luis Vas de Torres, a Spaniard, sailed through the strait subsequently named for him, and may have touched at several points on the north coast. In 1642 Abel Tasman (for whom Tasmania was named) sailed from west to east along the southern shore and proved that Australia was not a part of the Antarctic continent. The continent was named New Holland, and it was so called until about 1850.

In 1770 Captain James Cook, after visiting New Zealand, sailed to the east coast of New Holland and landed south of the present city of Sydney. His account of the country led to its being claimed and settled by Great Britain.

The first settlement, made in 1788 at Botany Bay, was founded as a penal station for criminals from England. Transportation of criminals was virtually suspended in 1839, and Australia had comparatively few white settlers until gold was discovered in Victoria in 1851, after which immigrants poured in. By 1860 all the states (then separate colonies) except Western Australia had been granted responsible government.

On January 1, 1901, the six Australian states united to form the Commonwealth of Australia. The Commonwealth supported Great Britain wholeheartedly in World War I, sending 329,883 troops abroad, all volunteers, of whom 59,258 were killed, died or were missing. The financial drain on a nation of less than 6,000,000 population was extremely heavy.

The Commonwealth again declared war on Germany September 3, 1939; and in 1940–42, Australian troops distinguished themselves in the African, Balkan, Crete and Malayan campaigns. With the Japanese invasion of Southeast Asia and New Guinea in late 1941 and early 1942, Australia was threatened with invasion for the first time in 150 years. The Commonwealth became a vast base for U. S. troops, and Gen. Douglas MacArthur set up his headquarters there on March 17, 1942.

In the general elections held August 21, 1943, Prime Minister John Curtin's Labour government was confirmed in office. Curtin died July 5, 1945, and was succeeded by Joseph B. Chifley, also of the Labour party. The Crown's appointment, on Commonwealth recommendation, of the Hon. William J. McKell, a local Labourite, to the office of Governor General, Jan. 31, 1947, to succeed the Duke of Gloucester, was bitterly criticized by the opposition. The Labour government was soundly defeated by the Liberal-Country-party coalition in general elections held Dec. 10, 1949, and Robert Gordon Menzies, the Liberal leader, became Prime Minister on Dec. 15. Elections held April 28, 1951, were again won by the coalition, although by a narrower margin.

GOVERNMENT. Australia, a self-governing member of the British Commonwealth of

Nations, is a federal union of six states (New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania) and two territories (Northern Territory and Australian Capital Territory). The Constitution is modeled to some extent on that of the United States. Federal legislative power is vested in a Parliament of two houses—the Senate with 60 members (10 for each state) and the House of Representatives with 121 members (plus 2 members without vote who represent the territories) elected on a population basis.

Executive power nominally is exercised by the King, through the Governor General, who is appointed by him. Actually, however, the Commonwealth is administered by the Prime Minister and the Cabinet members, who are responsible to the House of Representatives and must enjoy its confidence. The House of Representatives continues its sessions for three years from the date of its first meeting, unless sooner dissolved. Senators are chosen for six years, but the Senate may be dissolved in the event of prolonged disagreement with the House. The party alignment in the House after the elections of April 28, 1951, was as follows: Liberal 52, Country 17 and Labour 52 (and 2 non-voting members).

Each of the states is headed by a governor appointed by the British Crown and advised by the Prime Minister and his Cabinet; the latter actually administer the government. As in the U. S., the state governments retain the powers not specifically delegated to the federal government. The Northern Territory is administered by the federal government.

Federal judicial power is vested in a Federal Supreme Court of 7 justices, appointed by the Governor General in Council. Each state has its own judicial system.

Compulsory military service was reintroduced in 1951. The army then had upwards of 20,000 men, and the navy had over 10,000 men, with 1 aircraft carrier, 3 cruisers, 10 destroyers, 3 submarines (on loan from Britain), 14 frigates and many smaller craft. The air force had about 10,000 men. Army, navy and air units were sent to Korea. During World War II, 350,000 men served overseas.

SOCIAL AND ECONOMIC CONDITIONS. Normal primary education is provided free by the states. In 1947 there were 8,212 state schools, with average attendance of 856,753, and 1,871 private schools, with average attendance of 281,838. The 8 universities had a total enrollment of 30,477 in 1947.

Australia is the world's chief producer of wool, and sheep farming is the Commonwealth's most important single industry. About 55 per cent of Australia's total area is suitable (mining excepted) only for pastoral pursuits. On March 31, 1950, there were 112,890,988 sheep, 14,640,040 cattle, 1,122,973 hogs and 1,056,735 horses. The production of wool in 1949–50 was 495,195 long tons (greasy); butter, 173,232 tons; cheese, 45,000 tons. Production of meat averages 1,000,000 long tons annually; it was 1,050,899 tons in 1949–50.

The most important crop is wheat; the areas of heaviest production are in South Australia and New South Wales, but production in Western Australia is rapidly increasing. Production of wheat in 1949–50 was 5,845,222 long tons. Production of oats was 489,661 tons; barley, 436,232 tons; maize, 157,825 tons.

Sugar and cotton are grown in Queensland and New South Wales, tobacco in northeast Victoria, and vines chiefly in South Australia and Victoria.

Australian industry has made rapid progress, with the value of industrial output tripling between 1915 and 1940. Manufacturing is concentrated in or near the capital cities and is mainly concerned with primary production such as the processing of pastoral products, although heavy industrial goods are being manufactured in increasing volume. New South Wales is the leading industrial state. Power for industry is derived almost entirely from coal. In 1949–50 there were 41,588 factories, employing 917,661 workers and producing net output valued at £A661,505,000 and gross output valued at £A1,645,435,000. Steel production was 1,452,000 long tons in 1950.

Trade statistics for three years (in millions of Australian pounds) are as follows:

	1947–48	1948–49	1949–50
Exports	407.4	547.2	617.4
Imports	338.3	414.0	536.0

In 1949–50 leading customers were Britain (39%), the U. S. (8%), France (7%), India (6%) and Belgium (4%). Leading suppliers were Britain (52%), the U. S. (10%) and India (5%). Chief exports were wool (51%), wheat (10%), meat (6%), flour (4%) and butter (4%).

The principal ports are Sydney, Melbourne and Adelaide. Railway mileage in 1949 totaled 27,716; roads, over 500,000. Civil aviation is under Commonwealth control. The merchant marine had 349 ships (100 tons and over), aggregating 538,413 gross tons, on June 30, 1950. On Dec. 31, 1949, there were 1,086,385 telephones, 1,986,180 radios and 1,304,773 motor vehicles, including 702,380 automobiles.

Revenue on consolidated account (actual for 1949–50) was £A580,651,739 (estimated 1950–51: £A789,658,000); expenditure (actual 1949–50), £A580,651,739 (estimated 1950–51: £A789,268,000). Loan fund expenditure (actual 1949–50) was £A42,682,-

485 (estimated 1950–51: £A55,100,100). The public debt (federal and state) on Dec. 31, 1950, was £A2,993,647,000 (federal only: £A1,833,127,000).

NATURAL FEATURES AND RESOURCES. Australia is approximately equal in area to the United States and is more than three-fourths the size of Europe. Much of the continent is an arid plain with neither high mountains nor large forests. The coast line is unusually regular, but two great peninsulas jut out toward New Guinea in the north—Cape York Peninsula and Arnhem Land. Between them lies the Gulf of Carpentaria. A wide bay, the Great Australian Bight, cuts into the south coast. Along the east coast, ranges of mountains run from north to south, reaching their highest point in Mt. Kosciusko (7,352 ft.). West of the mountains are three plains, one drained by the Murray and Darling Rivers which flow into the sea southeast of Adelaide, the second draining into Lake Eyre, a salt lake, and the third—a tropical plain—bordering the Gulf of Carpentaria. The western half of the continent is occupied by a desert plateau which rises into barren, rolling hills near the west coast. It includes the Great Victoria Desert, to the south, and the Great Sandy Desert to the north. The island of Tasmania (26,215 sq. mi.), lying off the southeastern coast, is largely a plateau.

Australia possesses considerable mineral resources. The value of mineral output in 1949 was £A68,462,311. Most important is gold (1949 output: 896,872 ounces). Second in importance is coal, mined near Sydney, Brisbane and in eastern Tasmania (1949 output: 14,098,000 long tons plus 7,369,000 tons of brown coal). The Broken Hill mines in New South Wales are one of the most valuable silver-lead-zinc areas in the world. Silver production in 1949 was 9,849,213 ounces; lead, 213,491 long tons; and zinc, 181,998 tons. Other important minerals include tin (1,973 tons), copper (13,462 tons), iron ore (1,472,669 tons) and uranium.

Forest products include timber (rough sawn), eucalyptus oil, sandalwood oil, tan bark and yacca gum. Sea products include bêche-de-mer, oysters, pearls, pearl shell, tortoise shell and agar-agar.

CLIMATE. The northern third of the country lies within the torrid zone and the remainder within the south temperate zone. The coolest portion of the mainland (Victoria) is not unlike Spain and south Italy. The average temperature for Australia as a whole is 70°, and the northern coastal areas average 82°. Only in the center of the continent does the annual range of temperature exceed 30°. Large areas of the continent receive less than 10 inches of rain. The eastern highlands and Victoria are the best-watered regions.

Norfolk Island, under Commonwealth administration since 1914, lies about 800 miles east of New South Wales. It enjoys a delightful subtropical climate. Citrus fruits, bananas and coffee are grown.

PAPUA (British New Guinea)—Status: Territory under Australian administration.
Administrator: J. K. Murray.
Capital: Port Moresby (population 3,000).
Chief exports: rubber, gold.
Agricultural products: coconuts, rubber, copra.
Minerals: gold, silver.

Comprising the southeastern part of the island of New Guinea, with the islands of the D'Entrecasteaux, Louisiade and adjoining groups, Papua was annexed by Queensland in 1883 and by the British Crown in 1888. It came under the control of the Australian Commonwealth in 1901 and became the Territory of Papua in 1906. Japan invaded Papua in early 1942, but with the capture of Buna in December, 1942, Australian control was restored.

In 1947 there were 2,000 Europeans in the territory. About 280,000 acres of land have been leased, chiefly by planters, and more than 62,000 acres are cultivated.

NEW GUINEA, Territory of—Status: U. N. trust territory.
Seat of administration: Port Moresby.
Administrator: J. K. Murray.
Chief export: gold.
Agricultural products: coconuts, cacao.
Minerals: gold, silver, platinum.

The northern section of eastern New Guinea (about 93,000 sq. mi.) was mandated in 1920 by the League of Nations to the government of the Commonwealth of Australia, together with the Bismarck Archipelago (New Britain, New Ireland and adjacent islands), the Admiralty Islands with several outlying groups, and the northern Solomon Islands (Bougainville and Buka). It was placed under United Nations trusteeship Dec. 13, 1946, but Australia continues to be the administering power. The administrator advises the Governor General of Australia, who can legislate by ordinance. Indirect rule by native chiefs has been continued. Japanese troops occupied much of the territory in 1942–45.

FIJI—Status: Colony.
Governor: Sir Leslie Brian Freeston.
Capital: Suva (population 25,395).
Foreign trade (1950): exports, £7,811,879; imports, £6,960,622. Chief exports: sugar (48%), gold, coconut oil.
Agricultural products: sugar (exports 1950: 114,254 long tons), coconut oil (10,083 tons), copra, bananas, molasses.
Mineral: gold (1949: 104,115 oz.).

Fiji colony consists of an archipelago of from 200 to 250 islands in the South Pacific Ocean about 1,740 miles northeast of Sydney, Australia. The larger islands, including Viti Levu (4,053 sq. mi.) and Vanua Levu (2,130 sq. mi.) are mountainous

and of volcanic origin. The archipelago was ceded to Great Britain by the native ruler in 1874.

The population in 1950 included 129,896 Fijians and 138,425 Indians. Importation of the latter to work the sugar plantations has led to important social and economic changes. There has been almost no intermarriage between Fijians and Indians, and considerable ill feeling has developed between them.

During World War II, the archipelago was an important air and naval station on the route from the U. S. west coast and Hawaii to Australia and New Zealand.

Fiji has a pleasant climate, with the temperature seldom leaving the 60°–90° range; rainfall is heavy in the southeastern three quarters of the archipelago, averaging 10–12 ft. annually, but is almost nil in the northwestern quarter.

NAURU—Status: U. N. trust territory.

This small island (8 sq. mi.), an important sources of phosphate (exports 1948–49: 659,800 tons) was annexed by Germany in 1888 and was placed under joint Australian, New Zealand and British mandate after World War I. In 1947 it was placed under U. N. trusteeship, with the same three administering powers. It lies about 2,215 miles northeast of Sydney and to the northeast of the Solomon Islands.

New Zealand (Dominion)

Area: 103,416 square miles (104,242 including outlying and annexed islands).
Population (est. Dec. 31, 1950): 1,940,738 (1945: Europeans, 93.5%; Maori, 5.8%; others, .7%).
Density per square mile: 18.6.
Governor General: Lord Freyberg.
Prime Minister: Sidney G. Holland.
Principal cities (est. 1950): Auckland (greater), 308,500 (seaport and naval base); Wellington (greater), 193,300 (capital); Christchurch, 171,500 (cereals, stock raising); Dunedin City, 91,200 (textiles).
Monetary unit: New Zealand pound (£NZ).
Language: English.
Religions (census 1945): Church of England, 37.5%; Presbyterian, 23.4%; Roman Catholic, 13.4%; Methodist, 8.2%; Baptist, 1.7%; others, 15.8%.

HISTORY. New Zealand, about 1,250 miles east of Australia, consists of two main islands and a number of smaller outlying islands so scattered that they range from the tropical to the antarctic. The islands, which have approximately the area of Italy, were discovered and named New Zealand in 1642 by Abel Tasman, a Dutch navigator. Captain James Cook explored them in 1769 and after him came many other sailors, sealers, whalers and traders. English missionaries landed in 1814 but made slow progress. On Jan. 22, 1840, to head off a possible French move to claim New Zealand, Britain formally annexed it. The New Zealand Company was formed the same year.

New Zealand was granted self-government in 1852, a full parliamentary system and ministries in 1856 and dominion status on Sept. 26, 1907. Meanwhile from 1861 to 1871 there was fierce intermittent fighting with the native Maoris. Gold was first discovered in 1853.

New Zealand's Labour party came to power in 1935 for the first time, with Michael J. Savage as Prime Minister. The party began a program of liberal economic and social measures and it was again successful in the 1938 elections.

When Savage died in 1940, he was succeeded by Peter Fraser, who formed a special war cabinet (New Zealand had joined Britain in the war against the Axis in September, 1939). In World War II, New Zealand troops fought in Egypt, Greece, Crete, North Africa, Sicily and Italy, and the islands served as a major base for U. S. troops in the Pacific war.

After 14 years in power, the Labour party was defeated at the general election of Nov. 30, 1949, and the National party took office with Sidney G. Holland as Prime Minister.

GOVERNMENT. New Zealand is a self-governing dominion of the British Commonwealth of Nations. The British Crown is represented by a Governor General named by the King after consultation with the New Zealand government. Legislative power is vested in the eighty-member House of Representatives. The former upper house (Legislative Council) was abolished effective Jan. 1, 1951. The House elected on Sept. 1, 1951, had 50 National-party members and 30 Labour-party members. Executive power is vested in the Cabinet chosen from the members of the majority party in the House and headed by the Prime Minister.

Military service was voluntary until July 22, 1940, when compulsory service was instituted. Service outside the Dominion, hitherto voluntary, also became obligatory during World War II. At full mobilization, New Zealand had 157,000 men in the armed forces and 124,000 in the Home Guard. Almost one-third of the whole male population of military age served overseas. The peacetime force is stabilized at 11,000 men. Naval forces include 2 cruisers, 6 escort destroyers and a number of mine sweepers.

Navy and volunteer army forces were dispatched to Korea in 1950. Compulsory service was adopted. A mutual defense pact with the U. S. was signed Sept. 1, 1951.

SOCIAL AND ECONOMIC CONDITIONS. State education is free and compulsory between the ages of 7 and 15. More than half the Maoris attend the regular public

schools; the remainder attend missionary and native village schools. In Dec. 1948, there were 2,241 primary schools, with 266,368 students, and 230 secondary schools, with 37,513 students. University students numbered 11,380. About 8 per cent of the national budget is expended on education.

New Zealand's advanced social security system, financed principally by a 5 per cent tax on wages, salaries and firm incomes, gives benefits for old age, sickness, unemployment, maternity and hospitalization, widows, orphans, poor families and chronic invalids. The Dominion's death rate is among the world's lowest.

Primarily a grazing country, New Zealand is one of the world's largest exporters of mutton, lamb, wool, butter and cheese. In 1949, livestock included 32,844,918 sheep, 4,722,836 cattle and 544,841 hogs. Wool production for 1949–50 was 174,100 long tons (greasy basis). Outside of grass, the chief crop is wheat (4,897,602 bushels in 1949–50). Other crops are oats, barley, potatoes, onions, tobacco, fruits and vegetables. Butter production in 1949–50 was 168,800 long tons; cheese, 105,400 tons; meat, 557,450 tons. Gross agricultural income in 1949–50 was £NZ181,000,000.

The chief industries of New Zealand are freezing of meat and making of butter, cheese and condensed milk. Others of major importance are electricity generation, saw milling and clothing manufacture.

In 1949–50 there were 8,027 factories with 144,309 workers. Gross output was valued at £NZ332,204,000.

Trade statistics for three years (in millions of New Zealand pounds) are as follows:

	1948	1949	1950
Exports	147.8	147.3	183.8
Imports	128.2	120.8	*

* Not available.

In 1950, New Zealand's leading customers, by value, were Britain (66%), the U. S. (10%) and France (4%). Leading exports were wool (40%), dairy products (29%) and meat (17%). Leading suppliers in 1949 were Britain (55%), Australia (13%) and the U. S. (10%).

The merchant marine had 164 ships (100 tons and over), aggregating 200,705 gross tons, on June 30, 1950. Government-owned railway mileage in 1948–49 was 3,526, and the mileage of roads in 1948 was 76,401.

Recent government financial data are as follows (in millions of New Zealand pounds):

	1948–49	1949–50	1950–51
Revenue	121.5	125.0	143.8
Expenditure	118.9	120.7	135.5

The public debt on March 31, 1950, was £NZ643,880,233, exclusive of £26,191,109, on which interest payments had been suspended since 1931 by agreement with the British government.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. New Zealand's two main components are North Island and South Island, separated by Cook Strait, which varies from sixteen to 190 miles in width. North Island (44,281 sq. mi.) is 515 miles long and volcanic in its south central part. It contains many hot springs and beautiful geysers. In the southern part of North Island is Lake Taupo (238 sq. mi.), in the center of a pumice-covered plateau.

South Island (58,093 sq. mi.) has the Southern Alps along its west coast, with Mt. Cook (12,349 feet) the highest point in New Zealand.

Principal minerals are coal (1950: 2,669,400 long tons), gold (1949: 84,874 ounces) and silver (1949: 292,599 ounces). Other minerals of importance include tungsten, pumice, silica sand, asbestos, scheelite, iron ore and phosphate. About 20 per cent of the total area is forested; 478,400,000 board feet of lumber were cut in 1949–50.

Flounder, snapper and tarakihi account for 75 per cent of New Zealand's fishery industry. There also are extensive oyster beds. The once important whaling industry declined sharply with development of pelagic whaling.

Numerous rushing streams give New Zealand a great volume of hydroelectric power. South Island has available about 4,000,000 horsepower, and North Island 800,000. About 95 per cent of the population has access to power.

The ocean tempers New Zealand's climate, which otherwise might have great variation. The range of mean temperatures is small (at Auckland, 66.3° in January, 51.2° in July; at Wellington, 60.9° in January, 47.2° in July). Rainfall is moderate except on the western slope of the Southern Alps; it averages 45.3 inches annually at Auckland and 47.5 inches at Wellington and is heaviest in winter.

DEPENDENCIES. The Auckland Islands (234 sq. mi.) and Campbell Island (44 sq. mi.) are the principal outlying islands, which have a total area of 307 square miles. They are included within the geographical boundaries of New Zealand as proclaimed in 1847. The Aucklands and Campbell are uninhabited. Six hundred miles north of the Aucklands are the volcanic Kermadec Islands (13 sq. mi.), annexed in 1887.

In Polynesia a number of uninhabited islands were brought under New Zealand's control in 1901. Rarotonga and Mangaia in the Cook group total 84 square miles. Niue (or Savage Island) (115 sq. mi.) is the largest island outside the Cook group. New Zealand also administers the Ross Dependency, an antarctic region claimed

by Great Britain in 1923, and the Union (or Tokelau) Islands, transferred in 1925 from the Gilbert and Ellice Islands colony.

WESTERN SAMOA—Status: U. N. trust territory.
Administrator: F. W. Voelcker.
Capital: Apia (population 10,000).
Foreign trade (1950): exports, £1,303,761; imports, £1,095,121. Chief export: copra.
Principal products: copra, cacao, bananas, tropical fruits, rubber.

The former German Samoan Islands were occupied by New Zealand troops in the opening weeks of World War I and were mandated to New Zealand by the League of Nations in 1920 as the Territory of Western Samoa. They came under U. N. trusteeship in 1947, with New Zealand continuing as the administering authority. The administrator is assisted by a legislature with a Samoan majority and a consultative Native Council. There are 9 islands, of which the largest and most populous are Savaii (703 sq. mi.) and Upolu (430 sq. mi.). They are largely mountainous but fertile. The inhabitants are Polynesian Christians.

Pacific Islands

High Commissioner in Western Pacific: Sir Leslie Brian Freeston.

Island groups in the Pacific administered by the British High Commissioner in the Western Pacific include (1) Gilbert and Ellice Islands, (2) British Solomon Islands, (3) Tonga, (4) Pitcairn Island, and (5) New Hebrides Condominium (see French Overseas Territories). The High Commissioner has headquarters at Suva, Fiji.

GILBERT AND ELLICE ISLANDS—Status: Colony.

The islands in these groups (including the Gilbert group; the Ellice group; Ocean Island [the seat of administration], Fanning, Washington and Christmas Islands; and the Phoenix group) were proclaimed a British protectorate in 1892 and annexed as a colony in 1915. The most important product is high-grade phosphate, produced on Ocean Island.

Ownership of Canton and Enderbury islands in the Phoenix group was long in dispute between Great Britain and the United States until 1939, when an agreement for "use in common" was reached by the two governments. Several of the Gilbert islands were occupied by Japanese forces in World War II, and Tarawa was the scene of one of the fiercest battles in U. S. Marine Corps history in Nov., 1943, when it was retaken from the Japanese.

SOLOMON ISLANDS—Status: Protectorate.

This British protectorate, lying east of New Guinea, includes the islands of Guadalcanal, Malaita, San Cristobal, New Georgia, Santa Isabel, Choiseul and numerous smaller islands. Bougainville, one of the group, is under Australian mandate. The islands, which came under British protection late in the 19th century, were the scene of several important U. S. naval and military victories during World War II. There are no native states, and administration is carried on by a Resident Commissioner assisted by a nominated Advisory Council. The most important products are copra, coconuts and rubber.

TONGA (FRIENDLY ISLANDS)—Status: Protected state.
Foreign trade (1949): exports, £810,927; imports, £583,523. Chief export: copra.

This native Polynesian kingdom in the Pacific came under British protection through the Anglo-German agreement of November 14, 1899. The native queen is advised by a British Agent; the 21-member native Legislative Council is partly elected and partly nominated. The only important products are copra and bananas.

PITCAIRN ISLAND—Status: Colony.

Located in the South Pacific, about midway between Australia and South America, Pitcairn has an area of 2 square miles. It was settled in 1790 by British mutineers from the ship "Bounty," commanded by Capt. Bligh. Overpopulation forced removal of the settlement to Norfolk Island in 1856, but about 40 soon returned. The island is governed by an elected council headed by a chief magistrate. The population in 1948 was 125.

Bulgaria (Republic)

(Bigariya)

Area: 42,741 square miles (including Southern Dobruja).
Population (est. 1949): 7,160,000 (1934: Bulgarian, 86.7%; Turkish, 10.1%; Gypsy, 1.3%; others, 1.9%).
Density per square mile: 167.5.
Chairman of Presidium: Georgi Damianov.
Premier: Vulko Chervenkov.
Principal cities (census 1946): Sofia, 434,888 (capital, railroad center); Philippopolis (Plovdiv), 125,440 (commercial center); Varna, 77,792 (Black Sea port); Ruschuk, 53,420 (chief Danube port); Burgas, 43,684 (Black Sea port).
Monetary unit: Lev.
Languages: Bulgarian, Turkish.
Religions: Greek Orthodox, 84.4%; Mohammedan, 13.5%; Jewish, .8%; Roman Catholic, .8%; others, .5%.

HISTORY. Bulgaria, with a strife-ridden political past, is an agrarian country about the size of Virginia. It sided timidly with Germany in World Wars I and II, hoping to win territory. It lost in both wars.

The first Bulgarians, a tribe of wild horsemen akin to the Huns, crossed the Danube from the north in A.D. 679, and took the province of Moesia from the

Roman Empire. They adopted a Slav dialect and Slavic customs and twice conquered most of the Balkan peninsula between 893 and 1280. After the Serbs subjected their kingdom in 1330, the Bulgars gradually fell prey to the Turks, and from 1396 to 1878, Bulgaria was a Turkish province. In 1878, after the Turks had ruthlessly suppressed a Bulgar revolt, Russia forced Turkey to give the country its independence; but the European powers, fearing that Bulgaria might become a Russian dependency, intervened. By the Treaty of Berlin (July, 1878), Bulgaria became autonomous under Turkish sovereignty, with the province of Eastern Rumelia under a Christian governor.

In 1887, Prince Ferdinand of Saxe-Coburg-Gotha was elected ruler; on Oct. 5, 1908, he declared Bulgaria (and Rumelia) an independent kingdom and was proclaimed Tsar.

In the First Balkan War (1912–13), Bulgaria joined its neighbor states and defeated Turkey; then it bickered with Serbia and Greece over division of Macedonia and was defeated by them in the Second Balkan War, which lasted one month—June–July, 1913.

Still coveting Macedonia, Bulgaria joined Germany in World War I and lost. On Oct. 3, 1918, Tsar Ferdinand abdicated in favor of his son, who became Tsar Boris III. The Treaty of Neuilly the next year disarmed Bulgaria, reduced it to its 1878 size, and levied a heavy indemnity. Internal disorder, underground intrigue and Agrarian-Communist agitation marked the next fifteen years.

Boris assumed dictatorial powers in 1934–35. When Hitler awarded his nation Southern Dobruja, taken from Rumania in 1940, the weak but land-hungry Boris joined the Nazis in war the next year and occupied parts of Yugoslavia and Greece. Later, with the fortunes of war swinging inexorably against them, the Germans tried to force Boris to send his troops against the Russians. Boris resisted and died under mysterious circumstances on Aug. 28, 1943.

Simeon II, infant son of Boris, became nominal ruler under a regency. Three days after Russia declared war on Bulgaria on Sept. 5, 1944, Bulgaria declared war on Germany. Russian troops streamed in the next day, and under an informal armistice a coalition "Fatherland Front" cabinet was set up under Kimon Georgiev.

The Fatherland Front regime represented the Communist, Zveno, Agrarian and Social Democratic parties, but real power was in the hands of the Communists, who had active Soviet support and were ably led by Georgi Dimitrov, veteran party leader and former secretary-general of the Comintern.

This Government initiated extensive social and economic reforms, instituted a ruthless purge of war criminals and suppressed all political groups which failed to subscribe to its policies. The elections of Nov. 18, 1945, and Oct. 27, 1946, were conducted in typical Communist manner, with the Fatherland Front securing overwhelming majorities, according to official figures.

After the plebiscite of Sept. 8, 1946, which resulted in overthrow of the monarchy, and the Oct. 27 elections, the Communists quickly moved to take over the Government officially and to reduce the political opposition to complete impotence. Dimitrov replaced Georgiev as Premier on Nov. 22, 1946.

During the next years, Bulgaria continued to strengthen its ties with its Balkan neighbors back of the "iron curtain." Dimitrov died July 2, 1949, while on a leave of absence in the U.S.S.R. Vassil Kolarov was elected Premier on July 20. He died on Jan. 23, 1950, and was succeeded by Vulko Chervenkov, Dimitrov's son-in-law.

The United States broke diplomatic relations with Bulgaria on Feb. 21, 1950.

GOVERNMENT. The constitution of Dec. 4, 1947, modeled after that of the Soviet Union, provides that the unicameral National Assembly is "the supreme organ of the State." The Assembly elects a 15-member presidium, the president of which is the nominal chief of state. Governmental administration is carried on by the Premier and his Cabinet, who are responsible to the Assembly. On Feb. 4, 1948, the Communist-dominated Fatherland Front was declared the only official party.

PEACE TREATY OF 1947. Under the treaty which took effect Sept. 15, 1947, Bulgaria's boundaries are those which existed Jan. 1, 1941, thus including Southern Dobruja. Bulgaria was to pay reparations in the amount of $45,000,000 to Greece and $25,000,000 to Yugoslavia and was to make compensation for damage to Allied property in Bulgaria at the rate of 75 per cent of the cost of replacement.

DEFENSE. The 1947 treaty fixed the strength of the armed forces as follows: army 55,000; anti-aircraft artillery 1,800; navy 3,500; and air force 5,200 men and 90 aircraft, none of them bombers. The army was purged of all anti-Communist officers late in 1946 and has been reorganized along Soviet lines.

SOCIAL AND ECONOMIC CONDITIONS. Though elementary education is compulsory and free between 7 and 14, the rate of illiteracy is relatively high. Schools in 1950 included 9,072 primary schools and 319 secondary and technical schools. The University of Sofia and 8 other universities and colleges had an estimated enrollment of 50,000.

Most of the population is Greek Orthodox. Clergy of all faiths are paid by the state. The national language, Bulgarian, is closely related to Russian; both employ the Cyrillic alphabet.

Bulgaria is predominantly agrarian, with 80 per cent of the population engaged in agriculture. Because of the mountainous character of the country, however, only about 43 per cent of the land is tilled or used for pasture. Most landholdings are small, and primitive methods of cultivation predominate. More than half the cultivated area is devoted to cereals, including wheat (production in 1948: 1,470,000 metric tons), corn, barley, oats and rye. Other crops are tobacco (1948: 68,000 tons), alfalfa, cotton, flax, potatoes and sugar. There are extensive vineyards in the southern valleys. Production of silkworm cocoons is highly developed. In 1947 Bulgaria had 549,000 horses, 1,711,000 cattle, 8,784,000 sheep, 1,069,000 goats, and 1,028,000 hogs.

Industries of Bulgaria are of minor importance and with three exceptions—preparation of tobacco leaf, distillation of attar of roses, and flour milling—are confined to domestic markets. All industries of any importance have been nationalized.

Foreign trade necessarily consists of the exchange of agricultural products for cheap manufactures. Statistics, in billions of leva, are as follows:

	1946	1947	1948
Exports	14.94	24.53	34.10
Imports	17.51	21.42	35.20

Leading customers in 1948 were U.S.S.R. (52%) and Czechoslovakia (11%). Leading suppliers were U.S.S.R. (58%) and Czechoslovakia (12%). Tobacco was the principal export.

Although the Danube is navigable along the northern border, only a comparatively small percentage of prewar Danube ship tonnage was Bulgarian. Railroad mileage, all nationalized, totaled 1,966 in 1949; highway mileage was 13,870 in 1945.

Government revenues and expenditures for 1950 were estimated at 207,300,000,000 leva and 198,000,000,000 leva, respectively.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Two mountain ranges and two great valleys mark Bulgaria's topography. The Balkan belt crosses the center of the country, almost due east-west, rising to a height of 7,800 feet. The Rhodope range breaks off from the Balkans in the west, curves and then straightens out to run nearly parallel along the southern border. Between the two ranges is the valley of the Maritsa, Bulgaria's principal river. Between the Balkan range and the Danube, which forms most of the northern boundary with Rumania, is the Danubian tableland, traversed by several short rivers. Southern Dobruja, a fertile region of 2,900 square miles below the Danube delta, is an area of low hills, fens and sandy steppes.

Soft coal is Bulgaria's principal mineral; production in 1948 was estimated at 3,871,000 metric tons. Other mineral products include aluminum and rock salt; uranium deposits have been reported.

About 30 per cent of the country is forested, but a large part is unproductive scrub, and most of the valuable woods are virtually inaccessible. Wood imports usually exceed exports.

Bulgaria's climate is characterized by cold winters and warm summers approaching the subtropical in the south. Rain and snowfall average twenty to forty inches a year. Temperatures at Sofia average 28° in January and 69° in July.

Burma (Republic)

Area: 261,749 square miles.
Population (est. 1949): 18,304,000 (1941: Burmans, 60%; Shans, 7%; Chins, 2%; Kachins, 1%; Indians, 6%; Chinese, 1%; Indo-Burmans, 1%; others, 22%).
Density per square mile: 69.9.
President: Sao Shwe Thaik.
Premier: Thakin Nu.
Principal cities (est. 1942): Rangoon, 501,219 (capital, chief port), Mandalay, 150,000 (river port, upper Burma), Moulmein, 70,000 (seaport); (est. 1941) Bassein, 50,000 (river port).
Monetary unit: Burmese rupee.
Languages: Burmese (70%), English.
Religions: Buddhist, 90%; Mohammedan, 3%; Hindu, 3%; Christian, 2%; others, 2%.

HISTORY. Lying on the eastern side of the Bay of Bengal between India, China and Siam, the Union of Burma came into existence as an independent state on Jan. 4, 1948. Since that time the new republic has held its own with difficulty against attacks on the one hand by Communist rebels seeking its overthrow and on the other by Karen insurgents seeking wider territorial autonomy.

In 1612 the British East India Company sent agents to Burma, and in the 17th and 18th centuries the Burmese stoutly resisted the efforts of British, Dutch and Portuguese traders to establish posts on the Bay of Bengal. Actual British rule dated from 1826, and in 1886 British troops forced the annexation of all Burma to India. On April 1, 1937, the British separated Burma from India and set it up as a Crown colony with its own legislature and a British governor.

For hundreds of years a battlefield of petty princes, Burma became a key battleground in World War II largely because the 800-mile Burma Road was the Allies' vital supply line to China. The Japanese in-

vaded the country in Dec., 1941, and by May, 1942, had occupied most of it, cutting the road. In Aug., 1942, the Japanese set up a puppet government under Dr. Ba Maw.

After one of the most difficult campaigns of the war, Allied forces liberated most of Burma prior to the Japanese surrender on Aug. 14, 1945. Civil government was resumed in Oct., 1945, but the native nationalist feeling continued strong.

An agreement with Britain signed on Jan. 27, 1947, gave the Burmese an opportunity to determine their future form of government. The leftist Anti-Fascist People's Freedom League secured a majority in the Constituent Assembly elections held April 9, 1947, and the Assembly voted on June 17, 1947, to declare Burma a republic. The interim Premier, U Aung San, was assassinated July 19, 1947, and was succeeded by Thakin Nu.

The Burma Independence Act, enacted Dec. 10, 1947, provided for the transfer of power in accordance with the provisions of the earlier Anglo-Burmese treaty signed at London Oct. 17, 1947. On Jan. 4, 1948, the Burmese formally gained full political control.

GOVERNMENT. The constitution adopted by the Constituent Assembly Sept. 24, 1947, provides for a government headed by the president, who is elected by the two houses of parliament—the Chamber of Deputies and the Chamber of Nationalities—meeting in joint session. The president appoints the premier on nomination of the Chamber of Deputies; the cabinet must enjoy the confidence of the Chamber of Deputies. Four frontier areas—the Shan, Kachin and Karenni states, and the Chin special division—are constituent parts of the Union but enjoy some autonomy.

The constitution contemplates a form of state socialism, with the operation of all public utilities and the exploitation of all natural resources to come eventually under state control.

SOCIAL AND ECONOMIC CONDITIONS. Burma had 4,937 state and recognized schools in 1947–48, with enrollment of 443,-332. In addition, almost every hamlet has a Buddhist school where tuition is free. Because of the many monastic schools, the percentage of wholly illiterate men is small. There is a university at Rangoon, with 2,960 students in 1949.

The natives in general are Mongolian; the Burmese are the most advanced.

Indians, settled in the delta region, supply most of the coolie labor, while the Chinese constitute the artisan and merchant class. Buddhism, the national religion, profoundly affects the national character; every village has its temple.

Burma is essentially agricultural, with crop growing concentrated in the delta and river valleys. It is a leading producer of rice, the staple food, which occupies two-thirds of the cultivated area. Output in 1949–50 was 5,090,000 long tons. Crops grown in the dry zone in upper Burma include millet, cotton, peanuts and sesame. Other crops include tobacco, fruit, vegetables and cereals. About 1½ million acres are under irrigation. The number of rubber plantations has increased. The principal domestic animals are water buffalo (716,867 in 1948), used as a beast of burden in the delta, and small humped oxen, which predominate in other areas. Cattle, including oxen, totaled 4,479,968 in 1948.

Leading industries include silk weaving and dyeing, rice husking, oil refining and wood carving.

The whole Burmese economy was disrupted during the Japanese occupation, and rehabilitation has made slow progress, hampered by lack of heavy material, consumer's goods and transport, and in some areas by extreme lawlessness and rebellion.

Exports in 1948–49 totaled 733,297,000 Burmese rupees, and imports, Rs. 373,321,-000. Chief exports were rice (82%), teak and other hardwoods (6%) and metals and ores (3%). Leading customers were India (38%), Ceylon (19%) and British possessions (13%).

Revenue in 1950–51 was estimated at 483,600,000 Burmese rupees; expenditure, at Rs. 532,200,000.

The principal commercial arteries are the Irrawaddy, navigable for 900 miles to Bhamo, and its tributaries. Regular steamer service is maintained to Bhamo. Railways designed to supplement river transport totaled 1,786 miles in 1948, all state-owned. There are no rail connections with India or any other country. The length of roads was 12,472 miles in 1949. The Burma Road connects Lashio, a rail terminus in nothern Burma, with Kunming, China.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Slightly smaller than Texas, Burma is divided into three natural regions: the Arakan Yoma, a long, narrow mountain range forming the barrier between Burma and India; the Shan Plateau in the east, extending southward into Tenasserim; and the Central Basin running down to the flat, fertile delta of the Irrawaddy in the south. This delta contains a network of inter-communicating canals and nine principal mouths.

Mineral resources are considerable but, in many cases, undeveloped. Production by the Burmah Oil Company, Ltd., in 1939, was 7,396,000 barrels, but in 1949 it was only about 320,000 barrels.

Other minerals include lead, silver, tin, zinc, nickel, cobalt, copper, gold, iron ore,

molybdenum, coal, uranium (reported), rubies, sapphires and jade. Postwar recovery has been slow.

More than half of Burma is forested, with government reserves totaling 31,637 square miles. Teak, valuable for naval construction, is the main timber product. Its cutting is strictly controlled. Natural-rubber exports were estimated at 7,750 long tons in 1949. Fisheries are exploited both along the coast and inland.

Burma forms part of the Asiatic monsoon region, but its climate is modified by the topography. There are three seasons: (1) cool and rainless (November through February); (2) hot and rainless (March through May) and (3) rainy (June through October). At Rangoon the annual temperature range is only 10°; at Mandalay, about 20°. Annual rainfall at Rangoon is about 100 inches; at Mandalay, 33.4 inches.

Chile (Republic)

(República de Chile)

Area: 286,323 square miles.
Population (est. Dec. 31, 1950): 5,862,000 (white, 30%; mestizo, 65%; Indian, 5%).
Density per square mile: 20.4.
President: Gabriel González Videla.
Principal cities (est. 1950): Santiago, 1,200,000 (capital); Valparaiso, 184,000 (port); Viña del Mar, 96,000 (resort center); Concepción, 90,000 (farming center); Antofagasta, 48,000 (nitrate).
Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Chile has had a relatively tranquil history amid South America's long record of revolution and strife, but it has suffered repeated labor disturbances in recent years.

Europeans first arrived in 1536, when Diego de Almagro, an associate of Pizarro, led an unsuccessful invasion from Peru. Five years later another Spaniard, Pedro de Valdivia, founded Santiago. On Sept. 18, 1810, Chile rebelled against Spanish rule, but independence was not won completely until 1818, when Bernardo O'Higgins and José de San Martín finally crushed the Spanish armies.

Chile, which has never lost a war, fought with Bolivia and Peru in 1879–83 and won the province of Antofagasta, Bolivia's only outlet to the Pacific, as well as extensive areas from Peru. In World War I, Chile was neutral. The overthrow in 1931 of Colonel Carlos Ibáñez, who had seized power in 1927, was followed by a brief chaotic period in which seven presidents tumbled in and out of office, but Dr. Arturo Alessandri (1932–38) did much to restore Chile's political and economic order.

Pedro Aguirre Cerda, victor in the 1938 elections, initiated an extensive socialist program before his death on Nov. 25, 1941. The term of Juan Antonio Ríos, elected as Radical candidate of the Popular Front in 1942, was marked by political dissension and labor difficulties. Under both external and internal pressure, the latter notably from its strong Communist party, Chile finally broke relations with the Axis on Jan. 20, 1943, but did not declare war on Japan until Feb. 14, 1945.

Ríos died June 27, 1946. Following a special election, Gabriel González Videla, candidate of a leftist-center coalition, became president on Nov. 3, 1946. His administration was plagued by recurrent labor disputes, some of which were said to be Communist-inspired. He pursued a strong anti-Communist policy, and in the March, 1949 elections, the Government coalition secured majorities in both chambers.

GOVERNMENT AND DEFENSE. The nation elects a president every six years, a Senate of forty-five members every eight years (one half renewable every four years) and a Chamber of Deputies of 147 members every four years. The president is assisted by a cabinet responsible to him but subject to impeachment by Congress, which also may override a presidential veto by two-thirds vote. All literate male citizens over twenty-one may vote in elections.

Military service is compulsory, beginning at twenty with an initial training period of nine months, after which a civilian is on reserve until the age of forty-five. In 1948 the army was unofficially estimated at 25,000. The navy, normally 12,000 men strong, had in 1951 one old battleship of 28,000 tons, six destroyers, seven submarines, eight escort vessels and two coast defense craft. Two U. S. light cruisers were authorized to be transferred to Chile during 1951. The air force, with 200 planes and 3,000 men in 1940, expanded during World War II.

SOCIAL AND ECONOMIC CONDITIONS. Education, free and compulsory between 7 and 15, is directed by the central government. In 1943, illiteracy was estimated at 24 per cent, third lowest in Latin America. School enrollment in 1947 was about 600,000. There are five universities, including the State University of Chile. About 20 per cent of the budget is devoted to education.

The base of the white population is Spanish, although there are some German, English, Irish and Scotch. Roman Catholicism is the dominant religion, but church and state were separated in 1925.

Chilean agriculture is mostly confined to the temperate central valley, similar to that of California. The available productive land is extremely limited, and most of it must be irrigated. Wheat (1950: 831,000 metric tons) is the leading crop, followed by potatoes, oats, barley, corn, string beans and fruits. Grapes, next to wheat

in acreage, produced 108,000,000 gallons of wine in 1950. Feudal-type estates, averaging 2,500 acres, predominate. Cattle in 1949 totaled 2,344,188 and sheep (1948) 6,435,000. Wool production in 1949 was 17,000 metric tons.

The livestock industry does not supply local needs, but wool is used in Chilean textile mills, and wool and hides are exported.

Foreign trade (in millions of U. S. dollars):

	1948	1949	1950
Exports	328	297	288
Imports	269	303	248

In 1950 the leading customers were the U. S. (52%), Argentina (6%) and France, Britain and Egypt (each 5%); leading suppliers were the U. S. (48%), Britain (12%) and Peru (7%). Chief exports in 1949 were copper (50%) and nitrate (21%). Leading imports were sugar, petroleum and products and cotton textiles.

Although Chile dreams of great industrial development and has all the necessary raw materials except high-grade coal and tin, progress continues slowly. Except for mineral processing, most manufacturing is of low-priced consumer's goods, particularly textiles. A steel industry was established in 1946.

Highway mileage totaled approximately 31,250 in 1947, about a third improved. Rail mileage was 5,434, partly electrified. Civil aviation is highly developed in the interior, and several international lines serve the country. According to *Lloyd's Register*, the merchant marine had 88 vessels (100 tons and over), aggregating 169,349 gross tons, on June 30, 1950.

Recent financial data are as follows (in billions of pesos):

	1949	1950*	1951*
Revenue	15.8	15.6	23.3
Expenditure	15.4	15.6	23.3

* Budget estimate.

The funded foreign debt totaled about $215,000,000 on Dec. 31, 1949; the direct debt on Dec. 31, 1948, was 6,762,000,000 pesos plus guarantees of 1,397,000,000 pesos.

The basis of the country's economy is its mineral resources in the northern desert provinces of Atacama, Antofagasta and Tarapacá, where the only natural nitrate in the world is found. Some 60 per cent of the world's iodine is obtained as a by-product of nitrate processing. Chile's world monopoly in nitrate, however, declined in importance with development of the synthetic product.

The world's largest copper reserve, estimated at 134 billion pounds, is in Chile, and also more than 900 million tons of high grade iron ore. The reserve of Chilean coal, noted for quantity rather than quality, exceeds two billion tons.

Mineral production in 1950 was as follows: coal, 2,180,923 metric tons; copper, 362,757 tons; iron ore, 2,953,233 tons; nitrate of soda, 1,614,146 tons; gold, 185,538 ounces; silver, 740,832 ounces. Mercury, manganese ore, cobalt, zinc, tungsten and molybdenum also are produced, and deposits of uranium have been reported. Oil was first produced in Tierra del Fuego in Dec. 1945. Production in 1950 was about 660,000 barrels.

Forests, estimated to cover 35 million acres in the southern provinces, yield a variety of commercial wood, including conifer, laurel and magnolia. Fishery products include cod, eel, oysters, sawfish, sardines, tuna and whale-oil.

TOPOGRAPHY AND CLIMATE. A narrow, mountainous land, Chile is 2,661 miles in length, and varies from 46 to 250 miles in width; one-third of its area is covered by the towering ranges of the Andes. In the north is the mineral-rich Atacama Desert, between the coast mountains and the Andes. In the center is a 700-mile-long valley, thickly populated, between the Andes and the coastal plateau. In the south, the Andes border on the ocean.

At the southern tip of Chile's mainland is Punta Arenas, the southernmost city in the world, and beyond that lies the Strait of Magellan and Tierra del Fuego, an island divided between Chile and Argentina. The Juan Fernández Islands, in the South Pacific about 400 miles west of the mainland, and Easter Island, about 2,000 miles west, are Chilean possessions.

Chile's short rivers are useful only for irrigation and as sources of electric power. The country has many ports but few good harbors, and most of the tonnage must be handled by lighters.

In Chile's extreme north the days are hot, the nights warm on the coast and cool in the interior. Central Chile's climate is comparable to that of southern California, and southward in the lake regions the climate is similar to that of the U. S. Pacific Northwest. In the extreme south, fogs and storms keep the mean temperature low. Santiago has extreme recorded temperature ranges of 25° and 96°. Snow is rare.

China (Republic)

(Chung-Hua Min-Kuo)

Area: 3,858,900 square miles.*
Population (est. 1950): 475,000,000.*
Density per square mile: 123.1.
President, Nationalist China: Generalissimo Chiang Kai-shek.
Premier: Chen Cheng.
Chairman of People's Council: Mao Tse-tung.
Premier: Chou En-lai.
Principal cities (est. 1948): Shanghai, 4,630,385 (chief port, industrial and financial center); Tientsin, 1,772,840 (commercial center); Peiping (Peking), 1,721,546

(capital, Communist China); Canton, 1,128,165 (southern commercial center); Nanking, 1,113,972 (former Nationalist capital); Mukden, 1,021,057 (capital of former Manchu dynasty); Chungking, 985,673 (river port, trade center).

Monetary unit: Chinese dollar.

Language: Chinese.

Religions: Confucianism, Buddhism, Taoism, Mohammedanism, Christianity.

* Including Province of Formosa (Taiwan), Manchuria and Tibet; excluding Outer Mongolia.

HISTORY. China, second in size and first in population among the countries of the world, is ancient and wise, but backward. Its recorded history is among the world's oldest. By 2000 B.C., Chinese were living in the Hwang Ho basin, and they had achieved an advanced stage of civilization by 1200 B.C. The great philosophers, Lao-tse, Confucius, Mo Ti and Mencius lived during the Chou dynasty (about 1122 to 249 B.C.). The warring feudal states were first united under Emperor Ch'in Shih Huang Ti, during whose reign (246–210 B.C.) work was begun on the Great Wall. Under the Han dynasty (206 B.C. to A.D. 220) China prospered and opened trade with the West.

The T'ang dynasty (618–907) has often been called the golden age of Chinese history. Painting, sculpture and poetry flourished under royal patronage, and printing made its earliest known appearance.

The Mings, last of the native rulers (1368–1644), overthrew the Mongol or Yuan dynasty (1280–1368) established by Kublai Khan, whose dominions extended into eastern Europe. The weakening Mings in turn were overthrown in 1644 by invaders from the north, the Manchus.

The Chinese closely restricted foreign activities, and by the end of the 18th century only Canton (and the Portuguese port of Macao) were open to European merchants. Following the Anglo-Chinese War of 1839–42, however, several treaty ports were opened and Hong Kong was ceded to Britain. Treaties signed after further hostilities (1856–60) weakened Chinese sovereignty and removed foreigners from Chinese jurisdiction. The disastrous Chinese-Japanese War of 1894–95 was followed by a scramble for Chinese leases and concessions by European powers which resulted in the nationalist Boxer Rebellion (1900), suppressed by an international force.

The death of the Empress Dowager Tzu Hsi in 1908 and the accession of the infant emperor Hsüan T'ung (Pu-Yi) were followed by a nation-wide rebellion led by Dr. Sun Yat-sen, who became first President of the Provisional Chinese Republic in 1911. The Manchus abdicated on Feb. 12, 1912. Dr. Sun resigned in favor of Yuan Shih-k'ai, who suppressed the republicans but was forced by a serious rising in 1915–16 to abandon his intention of declaring himself Emperor. Yuan's death in June, 1916, was followed by years of civil war between rival militarists and Dr. Sun's republicans. The death in 1925 of Dr. Sun, who had controlled only the Canton area in opposition to the recognized regime, was followed by a revival of the Kuomintang party, which practically deified him. Nationalist forces, led by Gen. Chiang Kai-shek and advised originally by Communist experts, soon occupied most of China, setting up a Kuomintang regime in 1928. Internal strife continued, however, and Chiang broke with the Communists.

An alleged explosion on the South Manchurian Railway on Sept. 18, 1931, brought invasion of Manchuria by Japanese forces, who installed the last Manchu emperor, Henry Pu-Yi, as nominal ruler of the puppet state of "Manchukuo." Japanese efforts to take China's northern provinces in July, 1937, were resisted by Chiang Kai-shek, who meanwhile had succeeded in uniting most of China behind him. Within two years, however, Japan seized most of the ports and railways. The Kuomintang government retreated first to Hankow and then to Chungking, while in "Occupied China" the Japanese set up a puppet government at Nanking headed by Wang Ching-wei. In 1943 Chiang became political as well as military leader of "Free China."

When the Japanese surrendered in 1945, a treaty was signed with the Soviet Union providing for Soviet withdrawal from Manchuria, joint Chinese-Soviet control of Manchurian railways for 30 years, a joint Chinese-Soviet naval base at Port Arthur and a free port at Dairen.

The surrender of Japan also touched off a race between Nationalist and Communist forces for control of China. Agreement was reached for the establishment of a Political Consultative Council representing all groups on Oct. 10, 1945, but fighting broke out again early in 1946 with the Communists controlling northern and central Manchuria and northern China.

The civil war continued without decisive results until late 1948, when the Communists loosed new drives, which by the end of 1949 had brought all China except the island of Formosa under their control. Barricaded on Formosa, the Nationalist regime was somewhat weakened by internal dissension and had little means at its disposal to make any effective counter-attack upon the mainland. The U. S., however, after the outbreak of the Korean war in June, 1950, promised naval and air aid to repel any invasion of Formosa. Chiang, who had stepped down from the presidency on Jan. 21, 1949, reassumed that post on Feb. 28, 1950, and on Mar. 8 appointed Chen Cheng premier.

The Communists meanwhile set up in September, 1949, a soviet-type government. After prolonged negotiations, the People's

government and the Soviet Union signed a 30-year treaty of friendship and mutual aid on Feb. 14, 1950; its published terms provided for a $300,000,000 Soviet credit and for the return of the Changchun railroad to China and the eventual return of Port Arthur and Dairen.

The Communist regime subsequently was recognized as the legal government of China by many nations but was unsuccessful in its efforts to secure a place in the U. N. It threw several hundred thousand men into the Korean conflict in Oct. 1950, in a futile effort to drive U. N. forces from Korea.

GOVERNMENT. Under the Nationalist constitution of 1947, the highest state organ is the National Assembly, which meets once each three years and is the "sovereign organ of the people." Its members are elected for 6-year terms on the basis of territorial and professional representation. The Assembly elects the President and Vice President of the Republic for 6-year terms. The organs of government are five in number—the Executive Yüan (cabinet), whose members, headed by the Premier, are appointed by the President with the concurrence of the Legislative Yüan; the Legislative Yüan, which exercises legislative functions when the Assembly is not in session and has ultimate control over the cabinet; the Control Yüan, broadly corresponding to an "upper house," which has general supervisory and censorial functions; the Judicial Yüan, the highest court of justice; and the Examination Yüan, which controls civil service.

The constitution of the People's republic was approved by a political consultative conference on Sept. 27, 1949, and was proclaimed on Oct. 1. It established as the highest organ of the state the people's government council, which is headed by a chairman and has legislative functions. The government council established as the highest executive organ a state administrative council (cabinet) headed by the premier. Effective control is exercised throughout by the central committee of the Chinese Communist party.

DEFENSE. Military service is compulsory in Nationalist China; the initial training period is one or two years. The fighting strength of the army in 1951 was upwards of 500,000 men. The air force had about 200 planes and the navy, some 100 small vessels. About 80 per cent of the budget was tabbed for military purposes.

Supreme control of the Communist armed forces is vested in the people's revolutionary military council. Communist forces in 1951 numbered about 4,000,000. The air force had perhaps 200 to 300 planes, largely Soviet-built jet fighters. Naval strength was negligible.

EDUCATION. Emphasis on the mainland is upon technical training and inculcation of the Communist ideology. In 1950 there were reported to be 227 colleges and universities, with about 140,000 students; 5,000 secondary schools, with over 1,500,000 students; and 300,000 primary schools, with over 20,000,000 pupils.

The mass literacy movement has been accompanied by the replacement of the old classical or "dead" Chinese language with the popular vernacular (Pai-hua) of the Mandarin dialect, employing perhaps 1,000 of the most essential of the many thousands of Chinese ideographs.

POPULATION AND RELIGION. Estimates of China's population vary and are only calculated guesses, since no national census has ever been taken. The population is quite unevenly distributed, with most of it in the following five areas: the central portion of the northern plain (Shantung); the Yangtze Kiang delta; a coastal belt extending southward from the Yangtze delta to the Canton delta; the Hupeh basin centered around Hankow; and the isolated basin of Szechwan, far to the west. Most Chinese who are not Christians or Moslems practice one of the three native religions —Confucianism, Buddhism or Taoism. Almost 10 per cent of the population is estimated to be Moslem; there are also many Roman Catholics and Protestants.

AGRICULTURE. In China, nearly 80 per cent of the population depend on the land for livelihood. Subsistence crops are necessarily emphasized, but China is still not self-sufficient in food. Cultivation is intensive, holdings are small, and irrigation is widely practiced. The three most important food crops are rice (1950, excluding Manchuria and Formosa: 55,000,000 metric tons), wheat (1949: 20,600,000 tons) and maize (1949: 6,500,000 tons).

In northern China, wheat, barley, corn, sorghum, millet and other cereals, and beans and peas predominate, whereas in the south, rice, sugar and indigo are most important. The Yangtze basin, one of the most favored agricultural regions in the world, is China's premier granary. Tea, the chief beverage, is grown mainly in the central uplands, coastal ranges and Szechwan; 11,767 metric tons were exported in 1949.

Silkworm culture is practiced widely, especially in the lower Yangtze valley. Cotton, the major purely industrial crop, runs from 2,500,000 to 4,000,000 bales a year. Soybeans are of ever-increasing importance. Other crops include fibers, tobacco, vegetable oils, cane sugar and many medicinal plants and spices.

The urgent need for subsistence crops has confined grazing grounds for sheep and cattle to the dry northwest and to mountain pastures. However, such animals as goats, poultry and especially pigs are raised everywhere.

The Communist land-reform program is reported to be proceeding gradually in carefully planned stages.

INDUSTRY. Industrially, China is still in its infancy. Development has been mainly in the erection of textile mills, silk and flour mills, match factories, tanneries and a few steel and cement mills. The production of consumer's goods far exceeds that of producer's goods, which must still be imported. Much of the industry which had been developed in the lower Yangtze valley and the Shanghai area was moved westward in 1938 and 1939 to escape Japanese capture, and southward in 1948 to escape Communist control.

Postwar industrial rehabilitation proceeded at a slow pace because of the high cost of labor and materials, high interest rates, power shortages and the unsettled political situation. The Communist regime is reported to be concentrating upon Manchuria as China's industrial center and to be shifting some industries to the northwest.

TRADE. Foreign trade statistics, in billions of Chinese dollars, are as follows:

	1946	1947	1948*
Exports	420	6,432	1.399
Imports	1,909	14,395	1.193

* Gold dollars.

In 1948 the U. S. supplied 48 per cent of China's recorded commercial imports, followed by India, 11 per cent; Britain, 8 per cent; and Japan, 1 per cent. Of the total exports, 31 per cent went to Hong Kong, 20 per cent to the U. S., 6 per cent to Japan and 4 per cent to Britain. Textiles and products accounted for 45 per cent of the domestic exports; tung oil, 9 per cent; pig bristles, 7 per cent; and eggs and tungsten ore, each 3 per cent.

COMMUNICATIONS. Exploitation of many of China's natural resources has been handicapped by the lack of internal communications. There is an extensive system of inland waterways and canals, however, and in central and south China most of the freight is carried by water.

The modern highway system now totals about 100,000 miles, but at least half of the system is in need of extensive repairs. The railway system, totaling about 18,000 miles, is concentrated in the lower Yangtze basin and in north China and Manchuria. The principal port, Shanghai, at the mouth of the Yangtze, normally accounts for about 50 per cent of the total maritime customs revenue, and is the Far East's major port.

FINANCE. Civil war threw China's finance into confusion. Complete budget figures are not available for recent years, but both the Nationalist and People's governments suffered large deficits. The Nationalist deficit was financed by the sale of gold, silver and foreign exchange; that of the People's government, to a considerable extent by note and victory-bond issues.

TOPOGRAPHY. China has about 1¼ times the area of the continental United States. Its coast line is roughly a semi-circle, about 2,150 miles long. The greater part of the country is mountainous, and only in the lower reaches of the Hwang Ho and Yangtze Kiang are there extensive low plains. The principal mountain ranges are the Tien Shan, to the northwest; the Kunlun chain, which attains a maximum height of 23,890 feet, running south of the Takla Makan and Gobi deserts; and the Trans-Himalaya, connecting the Kunlun with the borders of China and Tibet. Manchuria is largely an undulating plain connected with the north China plain by a narrow lowland corridor. Inner Mongolia contains the relatively fertile southern and eastern portions of the Gobi. The large island of Hainan (13,500 sq. mi.) lies off the southern coast.

HYDROGRAPHY. China proper consists of three great river systems. The northern part of the country is drained by the Hwang Ho (Yellow), 2,700 miles long and mostly unnavigable. The central part is drained by the Yangtze Kiang, the fifth longest river in the world (3,100 mi.). The Si Kiang in the south is about 1,650 miles long and navigable for a considerable distance. In addition, the Amur forms part of the northeastern boundary.

MINERALS. Mineral resources are considerable. Iron ore, far less plentiful than coal, is mined principally in the lower Yangtze valley and in north China. Tin, mined in Yunnan and southwest Szechwan, has been a major mineral export. Of some rarer minerals, notably antimony and tungsten, China is normally the world's leading producer. Lead, zinc, silver, mercury and gold are also mined, and discovery of uranium has been reported. Mineral production in 1949 was estimated as follows: coal, 15,500,000 metric tons; iron ore, 500,000 tons; tin (in ore), 4,300 tons; tungsten, 7,000 tons.

FORESTS AND FISHERIES. China urgently needs reforestation. Most remaining forests are on inaccessible mountain slopes. Bamboo is cultivated in groves throughout the country south of the Tsinling mountains. Both sea and river fisheries are rich and varied, and fresh or salted fish is a staple food in many districts. The coastal fisheries of Shantung, Chekiang and Kwantung are especially valuable.

CLIMATE. There are great diversities of climate. North China has the coldest winters in the world for its latitude (23.5° average in January at Peiping). The Yangtze valley is warmer, with winter temperatures more like those of Britain, while

the south has warm subtropical winters. Summer temperatures are uniformly hot throughout China (about 79° in July at Peiping and 82° at Hong Kong). South China receives regular rainfall averaging from 40 to 60 inches annually, but in the north rainfall is irregular and not as heavy; droughts and floods are common.

Chinese Outer Territories

MANCHURIA—Status: Integral part of Republic of China.
Area: 503,143 square miles.
Population (est. 1940): 43,233,954.
Chief exports: soya beans, bean cake, coal, millet, sorghum, corn.
Agricultural products (1949, in metric tons): soya beans, 1,800,000; wheat (1946), 393,000; rice, 380,000; millet; sorghum; maize.
Industries: iron and steel, machinery, textiles, food processing, chemicals.
Minerals: coal, iron ore, gold, lead ore, uranium, manganese ore.

Manchuria includes the three northeastern provinces of China—Fengtien, Kirin and Heilungkiang (now divided into nine provinces)—which before the Japanese invasion of 1931 were governed apart from China proper. A separate state (Manchukuo) set up under Japanese sponsorship was never recognized by China, the United States or Britain. The regime was a transparent screen for Japanese control exercised by the Kwantung army. The Japanese hold on Manchuria was broken by the Soviet invasion of August, 1945.

The decision reached at the Cairo conference (1943) that Manchuria should revert to Chinese possession was confirmed by the Chinese-Soviet treaty signed Aug. 14, 1945. Soon after the Japanese surrender, however, Chinese Communist troops moved into the country and continued to control most of northern and central Manchuria after the Soviet evacuation. In October, 1948, the Communists conquered the last few Nationalist-held areas. Manchuria was the base for the Communist attacks on U. N. forces in Korea which began in October, 1950.

As a result of extensive Japanese development, Manchuria became probably the richest industrial area in China, containing about two-thirds of her heavy industry and half her railway mileage.

The Communist People's government decided to concentrate its first efforts at industrial development in Manchuria.

Manchuria is also a rich agricultural region with a cultivable area estimated at 70,000,000 acres. Lumber from the forests of the East Manchurian Highlands ordinarily supplies the needs not only of the Manchurian plain but also of North China.

FORMOSA (TAIWAN)—Status: Province (Part of Republic of China).
Area: 13,836 square miles.
Population (est. 1950): 7,500,000.
Capital: Taipei (Taihoku) (326,407).
Foreign trade (1949): exports, U.S.$33,900,000; imports, $26,000,000. Chief exports: sugar, coal, salt, cement, tea.
Agricultural products (est. 1950, in metric tons): sugar cane, 5,436,000; rice, 1,400,000; tea, 14,000; bananas; pineapples; sweet potatoes.
Industries: sugar refining, canning, cement, chemicals, wood, paper.
Minerals: gold, coal, petroleum, silver, sulfur.

Formosa is a large island in the western Pacific, separated from China to the west by the Taiwan straits (narrowest point, 90 mi.). The Pescadores (Bokoto) (about 77 sq. mi.) and other outlying islands became administratively a part of Formosa under Japanese rule. Formosa, ceded to Japan in 1895 after the Chinese-Japanese War, remained Japanese until it was restored to China in 1945, in accordance with the Cairo declaration. It was the only territory under the control of the Nationalist regime in 1951.

Most of the inhabitants are of Chinese stock. There are also about 150,000 aboriginal tribesmen in the mountainous interior. Sugar cane, grown under the plantation system, is the most prosperous of the island's developments.

Formosa is one of the world's chief sources of camphor, and government monopolies of camphor, salt, opium and tobacco have been established. Forest resources are enormous. In 1946, railway mileage totaled about 2,500, and roads 10,000.

SINKIANG (CHINESE TURKESTAN)—Status: Chinese province.
Area: 705,969 square miles.
Population (est. 1946): 3,870,954.
Capital: Tihwa (Urumchi) (20,000).
Chief exports: wool, cotton, furs, skins, sheep, cattle, horses.
Agricultural products: wheat, corn, rice, cotton, sorghum, beans, fruit.
Minerals: jade, gold.

Largest and most remote of China's provinces, Sinkiang experienced violent Mohammedan uprisings after 1932. The Chinese governor, Gen. Shen Shih-tsai, reestablished order in 1937 with Soviet support. In 1943, Russian troops withdrew, taking with them all their economic installations, but following World War II Soviet influence was gradually restored and the province surrendered to the Chinese Communists in late 1949. On Mar. 27, 1950, the People's government signed an agreement with the U.S.S.R. providing for joint exploitation of Sinkiang's natural resources.

Chinese constitute about 5 per cent of the population; there are 14 other ethnic groups, mostly Turki tribes of the Sunni Moslem faith. The Mongol tribes are Lama Buddhists. There are vast stretches of desert and arid land, and the limited area under cultivation is mostly in oases and

river valleys. The northern slopes of the Tien Shan range, which divides the province from east to west, provide rich summer grazing lands. There were in 1943, 11,720,000 sheep, 870,000 horses, 1,500,000 cattle and 90,000 camels.

Almost all of the limited foreign trade is conducted with Russia. Some caravan trade is carried on over the high passes which separate Sinkiang from India. There are no railroads, but 2,440 miles of road were built during 1932–42. An air route from Peiping to Alma Ata in the U.S.S.R. crosses the province. The largest towns are Shufu (Kashgar) (80,000) and Soche (Yarkand) (70,000), both near the western border. About 85 per cent of the population lives in the western side of the province, adjacent to the Soviet Union and separated from China by desert.

TIBET—Status: Nominally independent; under Chinese Communist control.
Area: 469,294 square miles.
Population (est. 1948): 3,000,000.
Capital: Lhasa (50,000).
Ruler: The 14th Dalai Lama (Lingerh Lamutanchu).
Monetary unit: sang.
Exports: wool, live animals, salt, hides, borax, tea, musk.
Agricultural products: barley, fruits, pulse, vegetables.
Minerals: borax, salt, coal, gold.

Tibet, north and northeast of the Himalayas, is the highest country in the world, averaging 16,000 feet in elevation and having many peaks ranging up to more than 25,000 feet. Chinese suzerainty over Tibet was established in the 18th century. The area was invaded by a British expeditionary force in 1904, but the Anglo-Russian Convention of 1907 recognized China's influence and stipulated that neither Russia nor Britain should interfere in Tibet's affairs.

The only country in the world under complete ecclesiastical control, Tibet is a theocracy ruled by the Dalai Lama (born June 6, 1935), who was invested with full powers in November, 1950.

Chinese Communist troops invaded the area in October, 1950. An agreement signed with Communist China in May, 1951, recognized the Dalai Lama as spiritual and temporal ruler but made Tibet virtually a Chinese province.

The religion and predominant factor in Tibet's social system is Lamaism, a late form of Buddhism modified by animism and primitive magic. Education is in the control of the many monasteries, some of which have more than 1,000 monks. A large number of the population are lamas, mostly celibates. Both polyandry and polygyny are practiced.

Some agriculture and herding is possible in the valleys.

KWANTUNG—Status: Chinese territory under Soviet occupation.
Area: 1,444 square miles.
Population (est. 1938): 1,750,000.

Kwantung, at the southern end of Manchuria's Liaotung peninsula, was leased to Russia by China in 1898. The lease was transferred in 1905 to Japan, which administered the territory until the end of World War II. The Chinese-Soviet treaty of 1945 provided for the return of the territory to China and for joint control of the naval base of Port Arthur; Dairen was to be a free port. The Soviet Union, however, refused to honor these provisions of the treaty and retained sole control of the area.

Port Arthur has an excellent ice-free, deep-water harbor which gives it great strategic importance. Dairen, the principal city (pop. 533,696), also has an ice-free harbor. Both Dairen and Port Arthur are connected with the Manchuria railways.

Colombia (Republic)

(República de Colombia)

Area: 439,714 square miles.
Population (est. 1950): 11,259,730 (mestizo 68%; white, 20%; Indian, 7%; Negro, 5%).
Density per square mile: 25.6.
President: Laureano Gómez.
Principal cities (est. 1950): Bogotá, 543,590 (capital); Medellín, 264,560 (mining); Barranquilla, 255,050 (chief port); Cali, 165,200 (coffee, mining).
Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Colombia, nearly nine times the size of New York state, is the only country in South America with frontage on both the Pacific and the Caribbean. Its northern coast was one of the first parts of the Americas to be visited by Spanish explorers. Darien, the first permanent European settlement on the American mainland, was founded in 1510, Santa Marta in 1525, and Bogotá in 1538.

New Granada, as Colombia was called until 1861, was comparatively neglected during the Spanish colonial era. After winning independence from Spain during a fourteen-year struggle ending in 1824, the country established a republic in 1831, including the area that now is Panamá. Intermittent civil war plagued Colombia until 1903, when Panamá, with United States backing, seceded from the republic.

The century-old boundary dispute with Peru over Leticia almost led to war in 1931, but a settlement was arranged through the League of Nations in 1934–35.

The administration of Alfonso López, Liberal president in 1934–38, introduced constitutional and labor reforms and the removal of state protection for the Roman Catholic Church. López won the presidency again in 1942 but resigned on Aug. 7, 1945.

The provisional president, Alberto Lleras Camargo, was also a Liberal, but when the Liberal party split again in the elections of May 5, 1946, Mariano Ospina Pérez, a Conservative, won. The Liberals, however, retained control of Congress.

Bogotá, host at the time to the Ninth International Conference of American States, was swept by a destructive but unsuccessful revolt on April 9, 1948, following the assassination of Jorge Eliécer Gaitán, extremist Liberal leader. The 1949 presidential election, held on Nov. 27 and boycotted by the Liberals, was won by the Conservative candidate, Laureano Gómez, who took office on Aug. 7, 1950.

GOVERNMENT AND DEFENSE. Colombia's president, who appoints his own cabinet, is elected every four years and is not eligible to succeed himself immediately. The Senate—upper house of Congress—has 63 members elected for four years by direct vote. The House of Representatives of 123 members is directly elected for two years. All male citizens over 21 may vote.

A term of military service is compulsory for men between twenty-one and thirty. The strength of the army in 1948 was unofficially reported at 14,000. With 2,500 personnel, the navy has two modern destroyers, three sea-going gunboats, three patrol craft, four river gunboats, one frigate and several motor launches.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and technically compulsory in Colombia, whose last published illiteracy figure was 48.4 per cent. By law, 10 per cent of the national budget goes for education. In 1946, 12,324 primary schools reported enrollment of 711,798 pupils, and there were 2,267 other schools with total enrollment of 116,412. In addition to the National University, founded at Bogotá, 1572, there are four departmental universities and several private ones.

Because of the former isolation of the interior, the language and manners in Bogotá are more purely Castilian than anywhere else in South America. The white race retains its social and economic dominance over Indians and Negroes, but race mixture is steadily reducing its numbers. In recent years, notably since adoption of a new labor code in 1944, the working classes have made important gains, including minimum wages, vacations and holidays, accident and sickness benefits, and the protected right of union organization.

Most of the people live by farming and cattle herding, but only a small part of the land is cultivated, and that by primitive means. Colombia's coffee, by far the principal crop, is a mild variety that does not compete with Brazilian types. Production in 1949 was 6,148,391 bags of 132 pounds each. Other crops include bananas, coconuts, tobacco, sugar cane, corn, cotton, cacao, beans, rice, tropical fruits and, in the temperate regions on plateaus and in mountain valleys, cereals and potatoes. Cattle in 1947–48 were estimated at 13,902,000 head, according to U.N. statistics.

The leading manufacturing industries are foodstuff processing, textiles and beverages. In 1945 there were 7,853 factories employing 135,400 workers.

To protect foreign trade balances, the government has taken over control of exports and imports. Trade statistics, in millions of pesos, are as follows:

	1948	1949	1950*
Exports	509	626	759
Imports	589	516	645

* Provisional.

In 1949 the U. S. took 81 per cent of the exports and supplied 78 per cent of the imports. The leading exports were coffee (79%) and petroleum (19%), followed by bananas, platinum and gold.

Difficult terrain makes Colombia's rail and road building costly. Rail mileage, including many short feeder lines, was put at 2,159 in 1949; and improved highway mileage at 11,200.

Air transit is now well advanced, and there are 4,620 miles of navigable waterways. The national merchant marine service has been combined with those of Venezuela and Ecuador.

Colombia's 1951 budget provided for expenditures of 501,000,000 pesos. The public debt on June 30, 1950, amounted to 508,802,107 pesos.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Through the western half of the country, three Andean ranges run north and south, merging into one at the Ecuadorean border. The eastern half is a low, jungle-covered plain, drained by spurs of the Amazon and Orinoco, inhabited mostly by uncivilized Indians.

Colombia's mountain ranges have many lofty peaks, including Huila, 18,700 ft., and Tolima, 17,109 ft. The fertile plateau and valley of the eastern range is the most densely populated part of the country.

Rich in minerals, Colombia has the fifth largest oil industry in Latin America (70 per cent controlled by U. S. interests). Production in 1950 was 34,000,000 barrels. The country is also rich in platinum and has world-famous emerald mines at Muzo in the eastern Andes. Mineral production includes crude platinum (1949: 19,739 troy ounces), gold (1949: 359,474 fine ounces) and silver (1949: 106,590 fine ounces).

Colombian forests, covering a large part of the country from the western Andes to the eastern plain, are a great but little exploited source of wealth. Products include

vanilla, quinine, ipecac, sarsaparilla, gums and balsams, tanning agents, dyewoods, hardwoods and rubber.

Alligators along many of the large rivers are hunted for hides. The rivers and lakes abound with fish and turtles, a source of commercial tortoise shell.

Although Colombia lies almost entirely in the north torrid zone, its climate is tempered by prevailing winds and high altitudes in the western, mountainous area. High temperatures and excessive moisture prevail in the lower areas, along the coast and in the larger river valleys. The dry season occurs in summer.

Costa Rica (Republic)

(República de Costa Rica)

Area: approximately 19,238 square miles.
Population (census 1950): 795,044 (white and mestizo, 97%; Negro, 2%; Indian, 1%).
Density per square mile: 41.3.
President: Otilio Ulate Blanco.
Principal city (census 1950): San José, 86,909 (capital and only large city).
Monetary unit: Colón.
Language: Spanish.
Religion: Roman Catholic (state).

HISTORY AND GOVERNMENT. Costa Rica was discovered and probably named by Columbus in 1502. A Spanish province as early as 1530, it proclaimed its independence in 1821, and was a member of the Central American Union from 1823–38. Aside from boundary disputes with Panamá and Nicaragua, Costa Rica's modern history was comparatively tranquil until the spring of 1948, when a brief civil war followed congressional annulment of presidential elections in which Otilio Ulate Blanco defeated the Government candidate. Leftist-supported government forces surrendered on April 20, and on May 8 an 11-man junta assumed control of the nation pending the drafting of a new constitution by a Constituent Assembly elected on Dec. 8, 1948. The Assembly met on Jan. 16, 1949, confirmed Ulate as president-elect, and, after drafting the new constitution, dissolved on Nov. 8, on which date Ulate took office.

Under the 1949 constitution the president and one-house Congress of 45 members are popularly elected for four years.

The army was abolished in 1950. There is a police force of 1,000 and 700 coast guardsmen.

SOCIAL AND ECONOMIC CONDITIONS. Costa Rica's illiteracy rate of approximately 15 per cent is the lowest in Central America, with elementary education free and compulsory. In 1948, a total of 919 primary schools had 99,650 students; 44 secondary schools, 10,955 students; and the National University at San José, more than 800. Since 1944, English has been taught in all primary schools.

Coffee, bananas, abacá fiber and cacao are the basic products of Costa Rican agriculture, which is characterized by the prevalence of small land holdings. Cotton, sugar cane, tobacco, corn, beans, rice and potatoes are subsidiary crops. Cattle are raised mainly for dairying.

Coffee production totaled 464,709 bags in the 1949–50 season.

Manufacturing is virtually limited to locally-consumed products, chiefly furniture, fine woodwork and tobacco.

Exports in 1950 totaled $34,689,235 (67% to the U. S.); imports, $46,032,968 (67% from the U. S.). Leading exports included coffee (51%), bananas (30%), cacao and abacá fiber. Leading imports are textiles, machinery, vehicles, oil, and iron and steel products.

In 1948, the rail system totaled approximately 670 miles; improved highways, 1,020 miles.

The 1951 budget balanced revenue and expenditure at 134,928,691 colones. The public debt on Dec. 31, 1950, was 403,504,340 colones.

Gold (1948 exports: 1,322 troy oz.) is the most valuable mineral, although silver, manganese, mercury and sulfur also exist. Oil indications have been found in the south. The mountain slopes yield such forest products as balsa, cedar, dyewood, mahogany and rosewood. The fisheries along the coast are valuable; tuna, shark-livers and live turtles are important products.

TOPOGRAPHY AND CLIMATE. Most of Costa Rica is elevated tableland, from 3,000 to 6,000 feet above sea level, with sharp slopes to the Caribbean and Pacific. Cocos Island, about 300 miles off the Pacific Coast, is under Costa Rican sovereignty; although it is mostly tropical jungle, it is of potential strategic importance in the defenses of the Panama Canal.

The weather is cool and refreshing in the Costa Rican highlands, with average temperatures of 68°, and San José is increasing in importance as a tourist resort. Along the coasts, the mean annual temperature is about 82°. The rainy season is usually from April or May to December.

Cuba (Republic)

(República de Cuba)

Area: 44,217 square miles.
Population (est. Dec. 31, 1950): 5,415,000 (white and mulatto, 75%; Negro, 24%; Mongoloid, 1%).
Density per square mile: 122.5.
President: Carlos Prío Socarrás.
Principal cities (census 1943): Havana, 659,883 (capital, industrial center); Santiago de Cuba (1946 est.) 152,000 (seaport,

mining); Marianao, 120,163 (suburb of Havana); Camagüey (1946 est.) 87,009 (cattle, sugar); Matanzas, 54,844 (seaport, sugar).

Monetary unit: Peso.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. The history of Cuba, largest of the many Caribbean islands, began for white men with discovery by Columbus on his first voyage in 1492. It was a Spanish colony until 1898, except for brief British occupancy in 1762–63. Open war raged between Cuban rebels and Spanish troops from 1867 to 1878. Fighting broke out again in 1895, and when the United States threatened to intervene, Spain felt its national dignity had been wounded. Strained relations between Spain and the U. S. led to war when the U. S. battleship *Maine* was blown up in Havana harbor in Feb., 1898. At the end of the brief Spanish-American War, Spain gave up Cuba.

Until creation of the Cuban republic in 1902, the island was ruled by United States military authorities. For the first thirty-two years of the republic's life, the United States held the right to intervene in any crisis—a right which was invoked during insurrections in 1906, 1912 and 1917.

Corruption bedeviled Cuba after World War I, particularly during the eight-year presidency of Gerardo Machado, who was ousted in a 1933 revolution. Five different presidents tried to rule in the next few months; out of this political whirligig came the dictatorship of Fulgencio Batista, who climbed almost overnight from army sergeant to army commander-in-chief. In 1940 Batista legalized his reign by being elected to a four-year presidential term. He was succeeded in 1944 by Dr. Ramón Grau San Martín, backed by the Republicans and his own Auténtico party. Carlos Prío Socarrás, government-sponsored candidate and strong anti-Communist, was elected president June 1, 1948, for a 4-year term beginning October 10.

GOVERNMENT. Cuba's president is elected for a 4-year term by direct popular vote, in which women take part. The Cabinet, though named by the president, is responsible to the Congress—a 54-member Senate and a 136-member House, both elected for four years. Much Cuban lawmaking is done through presidential decree, reviewable by the Supreme Court. Cuban politics are dominated by personalities, and there are frequent shifts in political grouping.

Compulsory military service was established in 1942. The army numbers about 17,000; the navy, 3,000, manning some twenty small coastal craft. The air force has 50 combat planes. Two U. S. air bases and one naval base built in World War II at a cost of more than $30,000,000 were turned over to Cuba in 1946. However, the United States retained its long-held naval base at Guantánamo.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory from 7 to 14. Schools numbered about 5,400 in 1946, enrolling some 520,000 pupils. Literacy was estimated at close to 70 per cent. The University of Havana, founded in 1721, has about 15,000 students.

Recent social legislation has effected a 44-hour week, a month's vacation for each eleven months worked, and compulsory maternity and accident insurance. The proportion of unionized workers is the highest in Latin America.

Half of the employed are engaged in agriculture, which normally accounts for more than 90 per cent of the exports. Often jolted by fluctuations in the price of sugar, of which it produced about 6,126,000 short tons in 1950, Cuba is now seeking to vary its agricultural production. About two-thirds of the cultivated area is devoted to sugar cane. Other important crops are tobacco (1949–50: 35,400 metric tons); coffee (1949–50: 39,900 tons); cacao, fruits, vegetables, henequen, corn, pineapples and beans. The livestock and dairy industry has progressed greatly in the last two decades.

Manufactured products include sugar, molasses, syrup, brandy, rum, alcohol, cigars, cigarettes, cigar boxes, sponges, cement, cordage, salt, dressed hides, dairy products and canned goods. The leading industry is the processing of sugar cane and its products.

Foreign trade (in millions of pesos):

	1948	1949	1950*
Exports	724	578	642
Imports	527	451	515

* Provisional.

Leading customers in 1950 were the U. S. (59%), Britain (14%) and the Netherlands (5%). The U. S. was by far the leading supplier (79%). Leading exports were sugar (85%) and tobacco (5%).

Mainline railroads totaled 3,017 miles in 1949, plus 7,870 miles of industrial trackage, mostly on sugar estates. Improved highways totaled 2,320 miles. Domestic airlines are operated by the Cuban National Aviation Company, a Pan American subsidiary.

The preliminary budget for the fiscal year 1951–52 balanced revenue and expenditure, ordinary and extraordinary, at 299,800,000 pesos. As of Dec. 31, 1949, the consolidated public debt was 105,880,000 pesos.

TOPOGRAPHY, NATURAL RESOURCES AND CLIMATE. Long, narrow Cuba has maximum dimensions of 730 by 160 miles, and is approximately the same size as Pennsylvania. It has mountainous areas in the southeast, central area and west, but

the rest is flat or rolling. The coastline of more than 2,100 miles is indented by many large bays. Cuba's numerous short rivers are of slight importance commercially.

Rich mineral beds mostly in the eastern province of Oriente, include iron, copper, manganese, chromium and nickel. Iron ore reserves estimated at 3,500,000,000 tons, are 90 per cent held by U. S. steel interests. Virtually all mineral exports go to the United States.

Cuba has an estimated 3,500,000 acres of wooded land, with valuable cabinet woods, such as cedar and mahogany, as well as fibers, resins and oils. Lobsters, oysters, crabs and shrimp are major sea food products.

The tempering influence of the trade winds on the island's tropical climate makes Havana's average temperature 77° with a range of only 10° (71° to 81°). The dry season lasts from November to April, and the warmer wet season occurs thereafter. Mean annual rainfall at Havana is about 50 inches.

Czechoslovakia (Republic)

(Československa Republika)

Area: 49,330 square miles (excluding Ruthenia).

Population (est. Dec. 31, 1949): 12,519,000; (Czech, 67.0%; Slovak, 23.7%; German, 3.2%; Magyar, 3.2%; Polish, Jewish and others, 2.9%).

Density per square mile: 253.8.

President: Klement Gottwald.

Premier: Antonin Zapotocky.

Principal cities (est. 1948): Prague (Praha), 932,024 (capital, industrial center); Brünn (Brno), 277,196 (textiles); Ostrava (formerly Moravska Ostrava), 183,794 (iron and steel); (1947): Bratislava, 172,664 (Danube port); Pilsen (Plzeň), 118,152 (Skoda steel works).

Monetary unit: Koruna.

Religions (1930): Roman Catholic, 73.54%; Protestant, 7.67%; Czechoslovak Church 5.39%; Greek Catholic 3.97%; Jewish, 2.42%; others, 7.01%.

HISTORY. Few nations have had a more tragic history than Czechoslovakia, which twice won and lost its independence within 30 years. Born out of World War I, the young republic was an early victim of Nazi aggression in 1938–39. At its rebirth in 1945 following World War II, it enjoyed a measure of its traditional democracy under the shadow of Soviet control. During the next three years Czechoslovakia made by far the greatest economic progress of all the Soviet satellites, but the government was subjected to increasing Communist pressure, climaxed in the spring of 1948 by the Communists' seizure of control and the resignation of President Beneš.

It was probably about the 5th century, A.D., that the ancestors of the Czechs and Slovaks settled in the region of modern Czechoslovakia. Slovakia passed under Magyar domination, but the Czechs founded the kingdom of Bohemia, which was among the most powerful in Europe for centuries. German encroachment began in the 12th century and was furthered by the election in 1526 of a Hapsburg as Bohemian king. After the Czechs rebelled in 1618 and were defeated at the Battle of White Mountain in 1620, they were ruled for the next 300 years by the Hapsburgs as part of the Austro-Hungarian Empire. In World War I, Czech patriots, notably Thomas G. Masaryk, went abroad to promote support for Czech independence, while Czech legions fought against the Central Powers. On Oct. 28, 1918, Czechoslovakia proclaimed itself a republic; shortly thereafter Masaryk was unanimously elected first president.

Between World Wars I and II, Czechoslovakia supported the League of Nations, formed the Little Entente with Yugoslavia and Rumania, and co-operated closely with France. President Masaryk resigned in 1935, two years before his death at the age of eighty-seven, and was succeeded by Dr. Eduard Beneš.

Meanwhile, the German plan of aggression was under way. Czechoslovakia's German minority, led by Konrad Henlein, began demanding autonomy. The government granted many concessions which, of course, were not enough to suit the Germans. The beginning of the end came at the Munich conference on Sept. 30, 1938, when France and Britain agreed that the Nazis could take the Czech Sudetenland on the German border. Dr. Beneš resigned on October 5, and Czechoslovakia became a federal union in the German orbit. The Poles, in the meantime, had seized Czechoslovakia's Teschen area, and Hungary had taken areas in Slovakia and Ruthenia. In March, 1939, the Nazis set up Slovakia as a puppet state, declared Bohemia and Moravia to be Nazi protectorates, and gave Hungary the remainder of Ruthenia. Both Slovakia and Bohemia-Moravia were occupied by German troops.

Czechoslovakia suffered cruelly under Nazi occupation, but Czech patriots were not deterred from widespread sabotage and slowdowns which hindered the Germans. Meanwhile, Dr. Beneš had organized a government-in-exile in London in 1940, with Jan Šrámek as Premier and himself as President. Soon after the government returned to Czechoslovakia in April, 1945, Ruthenia, the easternmost province, was ceded to Russia.

A 300-member Constituent Assembly elected on May 26, 1946, had 114 Communist members, and on July 3, 1946, Communist Klement Gottwald formed a six-party coalition cabinet. Amid increasing pressure from Moscow, Gottwald's cabinet remained in office until the bloodless coup

d'état of Feb. 23–25, 1948, when the Communists seized complete control of the republic. As they took over, Foreign Minister Jan Masaryk, son of the founder of Czechoslovakia, committed suicide. President Beneš stayed on until June 7, when he resigned following parliamentary elections in which the Communists and their allies were unopposed. Parliament elected Gottwald to the presidency, and Communist Antonin Zapotocky succeeded to the premiership. Beneš died Sept. 3, 1948. Again the Czechs had lost their hard-won liberties, and the government began a systematic suppression of democracy.

GOVERNMENT AND DEFENSE. Czechoslovakia's Soviet-type constitution, promulgated on June 8, 1948, makes the 300-member unicameral Parliament the supreme organ of the state with control over courts and civil service. The government is headed by the president, elected by Parliament for a seven-year term, and the prime minister and his cabinet who are appointed by the president but are responsible to Parliament. The constitution contains nominal guarantees of civil liberties and provides that the state shall conduct all economic activity in the public interest on the basis of a single economic plan. Provision is made for limited Slovak autonomy under an elected council of 100 members.

The army, based on a cadre of Czech units which fought with the Red Army during World War II, has been trained and equipped by the Soviet Union with organization and armament on its pattern. Estimated strength is 160,000, including police.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is low in Bohemia, higher in Slovakia. In 1947 there were 11,850 elementary schools with 998,200 students; 2,100 higher grade schools with 399,000; 335 secondary schools with 119,000, and 700 vocational schools with 99,800. The 7 universities had a total enrollment of 31,769 in 1948.

One of the country's greatest problems is the ethnic variety of its population. In view of the traitorous role played by German and Hungarian minorities in the disintegration of Czechoslovakia in 1938–39, the government decided to expel them from the country. Many Hungarians, however, were permitted to remain.

Decrees of the government issued on Oct. 24, 1945, ordered the nationalization of almost all industrial corporations with more than 500 employees. All national resources, public utilities, transport, commercial banks and insurance companies became state property. Other laws enacted April 28, 1948, nationalized all enterprises employing more than 50 as well as concerns of any size operating in key industries.

Distribution of large estates had already been accomplished following World War I by the 1919 Land Reform Law, which made it illegal for one person to own more than 370 acres of arable land. The social insurance system covers accident, sickness, disability, old age and death.

In 1947, 37.7 per cent of the employable population was engaged in agriculture, 34.8 per cent in industry, 6.4 per cent in commerce, 4.9 per cent in transportation and 10.5 per cent in public service and the professions.

Approximately 41 per cent of the total area is arable, 31 per cent forest, and 15 per cent meadows and pastures. Sugar beets (1949: 4,466,000 metric tons), wheat (1950: 1,590,000 tons), corn and high-grade barley and hops for beer brewing are cultivated in the low-lying areas. In more elevated regions, the cultivation of potatoes (1950: 7,484,000 tons), rye (1,250,000 tons) and oats predominates. Higher lands are also used for growing fodder crops or for grazing. The livestock census of 1949 enumerated 3,663,000 cattle, 3,242,000 hogs, 459,000 sheep and 640,000 horses.

The highly developed position of Czech industry is important in foreign trade, since production far exceeds domestic needs. Agricultural products, led by sugar, provide raw materials for important industries. The beer industry has attained world-wide repute, and there are also spirits, malt and foodstuffs industries. Abundance of coal and presence of iron ore give the country a big metallurgical industry. Steel production was unofficially estimated at 2,943,000 metric tons in 1950. The Skoda steel works at Pilsen are one of the largest in Europe.

Other industries are glass, porcelain and pottery making, while large forest areas provide raw material for the timber, paper and cellulose industries. Also highly developed are the textile industries, including cotton, wool, flax and jute production, and the shoe industry. The famous Bat'a shoe factories are at Zlin. Industrial employment, exclusive of building, totaled 1,395,000 in June, 1949.

Foreign trade is now a state monopoly managed by government corporations. Statistics, in billions of koruny, are as follows:

	1947	1948	1949
Exports	28.55	37.65	40.31
Imports	28.92	37.72	39.40

Leading exports in 1948 were iron and steel manufactures, 16.6 per cent; machinery (except electrical), 9.8 per cent; cotton textiles, 7.7 per cent; glass, 6.1 per cent; and vehicles, 6.0 per cent. Chief imports were cotton, 8.1 per cent; maize, 5.3 per cent; and chemical products, 4.2 per cent. Leading customers were the U.S.S.R., 16.0 per cent; Poland, 7.0 per cent; Yugoslavia, 6.9 per cent; and the Netherlands, 6.4 per cent. The chief suppliers were the U.S.S.R., 15.3 per cent; Britain, 10.1 per cent; and

Yugoslavia, 6.3 per cent. Reorientation of trade from west to east was virtually complete.

The disadvantages of Czechoslovakia's landlocked position are offset somewhat by a well-developed system of internal communications. Czech railroads, totaling 8,200 miles in 1948, form a direct connection between the systems of eastern and western Europe, making the country an important communications center. Highway mileage totaled 39,560.

Navigable streams total 1,156 miles in Bohemia-Moravia, and 111 miles in Slovakia. Internal waterways and rivers connect Czechoslovakia with the Black Sea and the North Sea.

Recent government finance data are as follows (in billions of koruny):

	1949*	1950*	1951*
Revenue	89.3	131.9	166.5
Expenditure	89.3	131.6	166.2

* Budget estimate.

National debt (Dec. 31, 1948): internal, 100,531,739,000 koruny; external, 20,318,953,000 koruny.

Most important of Czechoslovakia's varied minerals are pit coal and lignite, with the principal coal fields in the Ostrava-Karvinná area, connected with the Polish fields of Upper Silesia. Production in 1949 was 17,004,000 metric tons of hard coal and 26,520,000 tons of lignite.

Production of iron ore in 1948 was 1,429,000 tons, but much ore is imported to meet the demands of Czechoslovakia's flourishing iron and steel industry. Excellent porcelain raw materials, particularly kaolin (1947: 607,553 tons), are obtained in western Bohemia and southern Moravia. Other minerals are antimony, gold, magnesite, oil, uranium, silver and zinc.

Czechoslovakia is one-third wooded and is one of the richest forest lands in Europe, with a high production of lumber.

TOPOGRAPHY AND CLIMATE. A long and narrow country, with a length of 594 miles from east to west and a width varying from 45 to 175 miles, Czechoslovakia lies athwart the great central European watershed between the Baltic, Black and North Seas. Mountains form several of its boundaries—the Carpathians by Poland on the northeast, the Böhmer Wald by Austria on the southwest, and the Erzgebirge and the Sudetens by Germany on the northwest and north. Many of the valleys are made fertile by the Danube, Elbe and Vltava (Moldau) rivers and their tributaries. The Elbe and Danube are usually icebound for six to eight weeks each year.

At Prague, in Bohemia, the average annual temperature is 48.2° (29.6° in January; 66.2° in July) and the average annual rainfall is 19.6 inches. The corresponding figures for Presov, in eastern Slovakia, are 46.8° and 25.6 inches. Heavy winter snowfall is common in the highlands.

Denmark (Kingdom)

(Kongeriget Danmark)

Area: 16,575 square miles.
Population (est. Jan. 1, 1951): 4,286,900 (almost entirely Danish).
Density per square mile: 258.6.
Sovereign: King Frederick IX.
Prime Minister: Erik Eriksen.
Principal cities (est. 1951): Copenhagen, 764,800 (capital); Aarhus, 116,100 (shipping); Odense, 100,900 (meat, dairy products); Aalborg, 79,800 (seaport).
Monetary unit: Krone.
Language: Danish.
Religion: Evangelical Lutheran (state).

HISTORY. Denmark—comprising a peninsula and 500 islands in the Baltic Sea—is a vast produce farm, less than half the size of Indiana. Because of its rich production of meat, butter and eggs, it suffered almost no material damage from German occupation in World War II. Needing the Danish food, the Nazis permitted the Danish farmers to continue producing, and when the war was over and much of Europe was a starving ruin, Denmark emerged as a land of comparative plenty. Its principal economic difficulty was a lack of foreign exchange.

A tiny nation today, Denmark once was powerful and feared. After conversion of the Danes to Christianity in the 9th and 10th centuries, Canute the Great, King of Denmark, conquered England in 1015. In the 12th and 13th centuries, under Kings Valdemar I and II, Denmark reached the zenith of its power. By the terms of the Union of Kalmar in 1397, the nation was united with Norway and Sweden. Sweden left the Union in 1520, but Denmark and Norway remained united until 1814. In the Napoleonic Wars Denmark picked the wrong side; when Napoleon was defeated, Norway was given to Sweden and Helgoland to Britain in 1814. Denmark lost again in 1864 when, after a war with Austria and Prussia, it lost Holstein, Schleswig and Lauenburg to Prussia.

The country, which had become a liberal constitutional monarchy in 1849, stayed neutral in World War I, after which a plebiscite returned to it a part of North Schleswig. In 1917 Denmark sold the Virgin Islands to the United States for $25,000,000.

The Social Democrats, moderately socialistic, dominated Danish politics in 1924–26 and 1929–40 during an era marked by active participation in the League of Nations and close harmony with Norway and Sweden.

On May 31, 1939, eager for peace, Denmark signed a ten-year non-aggression pact

with Germany. Less than a year later, on April 9, 1940, Germany invaded neutral Denmark. The British countered by occupying the Faeroe Islands and Iceland. Iceland declared its complete independence from Denmark in 1944, thus breaking a union which had existed since 1280.

To save the country from destruction, King Christian X accepted the German occupation without armed resistance, and the Danish policy became one of passive resistance against Hitler's attempts to form a "model protectorate." During 1944–45, the Danish underground became increasingly active and effective.

Following the German surrender in 1945, the Danes quickly took over their government again with Social Democrat Vilhelm Buhl as prime minister. Buhl resigned when his party lost ground in the national elections of Oct. 30, 1945, and the King designated Liberal leader Knud Kristensen to form a new all-Liberal cabinet in Nov., 1945. Kristensen lost the confidence of the Folketing in Oct., 1947, as a result of his advocacy of a plebiscite in South Schleswig (Germany) looking toward annexation of at least part of the region to Denmark. The Social Democrats increased their plurality in the resulting elections, and on November 11, Hans Hedtoft was named prime minister. His party won the largest block of seats in the September, 1950, elections but was forced to yield the next month to a Liberal-Conservative cabinet headed by Erik Eriksen, a Liberal.

RULER. Frederick IX, of the house of Schleswig - Holstein - Sonderburg - Glücksburg, born March 11, 1899, became king April 20, 1947. In 1935 he married Princess Ingrid of Sweden, by whom he has three daughters. Succession is limited to the male line, and the heir presumptive is his brother, Prince Knud, born July 27, 1900. The King's uncle is King Haakon VII of Norway.

GOVERNMENT AND DEFENSE. Under the constitutional act of 1915, amended in 1920, Denmark is a constitutional hereditary monarchy. Legislative authority rests jointly with the king and the two-house Rigsdag. The 149-member Folketing (lower house) is popularly elected every four years but can be dissolved by the king at will. Members of the Landsting (upper house) are elected for eight years—56 by popular vote and 19 by the outgoing Landsting. The cabinet, presided over by the king, who designates the prime minister, is the highest executive power, handling new bills and important measures.

The lineup in the Folketing (after elections of Sept., 1950) was Social Democrat 59, Agrarian Liberal 32, Conservative 27, Radical Liberal 12, Single Taxer 12, Communist 7.

Military service is compulsory. The army, numbering about 12,000, is being re-equipped with British assistance. About 1,000 men are stationed in the British zone of Germany. The navy has 10 large torpedo boats, 3 submarines, 3 frigates, 1 corvette, and several smaller craft. Personnel numbers 4,000.

SOCIAL AND ECONOMIC CONDITIONS. Under the Danish system, schooling is compulsory from 7 to 14 and, for the most part, free. The famous popular high schools (*folkehöjskoler*) for adults number 55, all private but assisted by the state. The Royal University of Copenhagen, founded in 1479, has about 6,500 students and that of Aarhus about 1,100. Elementary schools in 1948 had 486,863 students; middle and secondary schools, about 87,000.

Social legislation is well advanced and provides for medical aid, poor relief, child welfare and workmen's compensation. The National Insurance Act requires everyone from 21 to 60 to belong to an approved sickness benefit society, to which the state also contributes. The co-operative movement is also well organized.

Approximately ninety per cent of the land is productive and about three-quarters is actually farmed. Agrarian reform laws have operated to bring about a large number of small holdings. About two-fifths of the cultivated area is devoted to cereals, led by barley, mixed grain, oats, rye and wheat. Root crops (fodder), potatoes and sugar beets also are important. The principal source of exports and of the nation's wealth is dairy farming and the production of bacon and pork (1950: 356,000 metric tons), butter (179,000 tons), beef and veal (168,000 tons), eggs (133,000 tons), cheese (61,000 tons) and milk (1,400,000,000 gallons). Livestock in 1950 included 3,053,000 cattle, 3,235,000 hogs and (1949) 27,635,000 poultry. Total value of farm and dairy production in 1950 was about 5,346,000,000 kr. Farming keeps pace with scientific advances.

Denmark produces primarily for home consumption, though some industrial products, such as Diesel motors, are large exports. In 1947 there were 7,224 larger establishments with 212,040 workers and an output valued at 6,420,000,000 kr. The largest industries were food-processing and iron and metal. Others were chemical and pharmaceutical, wood and paper, clothing, textiles, machinery, beverages and leather.

Trade statistics, in millions of kroner:

	1948	1949	1950
Exports	2,731	3,560	4,579
Imports	3,419	4,212	5,897

Leading suppliers in 1950 were Great Britain (32%), Germany (11%), and the U. S. and France (each 9%). Chief customers were Great Britain (42%), Germany

(19%) and Sweden (6%). Leading exports were dairy products, largely butter and eggs (33%), meat and products (22%), machinery (7%) and live meat animals (6%). Leading imports were coal, coke, petroleum and products, iron, steel and fodder.

The Danish merchant marine, one of the largest in the world on a per-capita basis, had 718 larger ships of 1,269,011 gross tons on June 30, 1950. Regular communications with foreign countries are mainly westward by sea. There are Swedish ferry services from Copenhagen to Malmö and from Helsingör (Elsinore) to Hälsingborg.

The main land route to the rest of the continent is the railway via Padborg and Schleswig to Hamburg. Railway mileage totals about 3,050, nearly half nationalized. Train-ferry services for inter-island communication are highly organized. Motor transport also is well advanced, with about 35,000 miles of roads.

Recent public-finance data are as follows (in millions of kroner):

	1949–50	1950–51*	1951–52†
Revenue	2,189	2.040	2,381
Expenditure	2,171	2,034	2,377

* Preliminary. † Budget estimate.

The national debt totaled 11,704,000,000 kr. on March 31, 1950.

Mineral resources are negligible, although some coal, granite and kaolin are found on the island of Bornholm. Large quantities of coal and coke must be imported. Peat bogs supply an important source of fuel. Forest resources are unimportant.

The fishing industry, centered at Copenhagen but carried on also in the shallow fiords and in the deeper waters of the Baltic, North Sea and Skagerrak, is a basic part of the Danish economy. The 1950 catch of about 213,000 metric tons was valued at 156,000,000 kr. Normally about two-thirds of the catch is exported, usually fresh, ice-packed, or live.

TOPOGRAPHY AND CLIMATE. Denmark, only three miles from Sweden at the closest point, consists of the Jutland peninsula and the islands in the Baltic. The largest islands are Zealand, the site of Copenhagen; Fünen; and far to the east, Bornholm. The narrow waters to the north are called Skagerrak; and to the east, Kattegat.

The terrain of the whole kingdom is low but not flat. Its highest point is about 500 feet, and there are many lakes, ponds and short rivers. Sand dunes line the western Jutland coast almost without a break.

Denmark's climate is like that of eastern England, but with colder winters and warmer summers. The average annual temperature is 45.2° (61° in July; 32° in January). Average rainfall is 24 inches; thunderstorms are frequent in summer.

Outlying Territories

FAEROE ISLANDS—Status: Autonomous part of Denmark.
Area: 540 square miles.
Population (census 1945): 29,198.
Capital: Thorshavn (population 3,611).
Government: Danish-appointed governor and locally-elected assembly.
Principal products: cod, whale oil, cod liver oil, wool, fertilizers, skins and leather.

This group of 21 islands, lying in the North Atlantic about 200 miles northwest of the Shetland Islands, joined Denmark in 1386 and has since been part of the Danish kingdom. The islands were occupied by British troops during World War II, after the German occupation of Denmark. The principal pursuits are fishing and sheep grazing. The predominant Sjálvstyrisflokkur, or Home Rule party, heads a movement seeking autonomy. Those favoring independence won a slight majority in a plebiscite held Sept. 14, 1946, but subsequent elections gave pro-Danes a majority. However, a bill enacted Mar. 30, 1948, established home rule.

GREENLAND—Status: Colony.
Area: 839,782 square miles (almost 85 per cent glacier).
Population (1946): natives, 21,379; Europeans, 450.
Government: Two inspectorates (Godthaab and Godhavn) supervised by the director for Greenland in Copenhagen.
Principal products: cryolite (1947: exports to U. S., 19,500 tons; to Denmark, 20,900 tons), fish, hides and skins, whale and fish oil, marble.

Greenland, the world's largest island, was colonized in 985–86 by Eric the Red. Danish sovereignty, which covered only the west coast, was extended over the whole island in 1917. In 1941 the United States signed an agreement with the Danish minister in Washington, placing it under U. S. protection during World War II but maintaining Danish sovereignty. U. S. weather stations and airports were built on the island, and American personnel continued to operate airports after the war.

Greenland is the world's only source of natural cryolite, important in the manufacture of aluminum. Trade (except cryolite) is a Crown monopoly.

Dominican Republic
(República Dominicana)

Area: 19,327 square miles.
Population (census 1950*): 2,121,083 (mestizo and mulatto, 70%; white, 15%; Negro, 15%).
Density per square mile: 109.7.
President: Rafael Leónidas Trujillo y Molina.
Principal cities (census 1950*): Ciudad

Trujillo, 181,533 (capital; sugar); Santiago de los Caballeros, 56,192 (tobacco); San Pedro de Macorís, 19,994 (sugar port); Puerto Plata, 14,419 (seaport).
Monetary unit: Dominican peso.
Language: Spanish.
Religion: Roman Catholic.
* Preliminary.

HISTORY AND GOVERNMENT. The Dominican Republic (formerly San Domingo) occupies the eastern two-thirds of the island which Columbus named La Española (now Hispaniola) when he discovered it on his first voyage in 1492. The other third is occupied by the republic of Haiti. The capital, Ciudad Trujillo, founded in 1496 is the oldest white settlement in the Western Hemisphere.

The Dominican Republic was variously under Spanish, French and Haitian domination until it established its independence in 1865 and then plunged into an unstable political history. U. S. Marines occupied it from 1916 to 1924, when a new constitution was adopted. In 1930, Rafael Leónidas Trujillo y Molina, an army general, was elected president. In office most of the time since then, Trujillo has brought about improved irrigation, roads, sanitation and schools, and in May, 1947, he was elected for another term.

The president is elected every five years by popular vote in which women take part, and he is eligible to be re-elected indefinitely. The 19-member Senate and the 40-member Chamber of Deputies are also elected for five years. Each of the eighteen provinces has an appointed governor. There is a 12,000-man army, a small air force and several coast patrol craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory from 7 to 14. In 1948, there were 2,576 schools with 242,545 students. The government began construction of a university city in 1946.

Primarily agricultural, the country produces sugar (1949–50: 523,951 short tons), coffee (361,383 bags of 132 lb. each), tobacco (21,957 metric tons), cacao, bananas, rice, corn, cassava, beans and sweet potatoes.

The raising of hogs and cattle has been expanded recently and the government is attempting to diversify crops to lessen the republic's dependence on sugar exports. Sugar refining, largely U. S. controlled, is the only important manufacture.

Foreign trade (in millions of pesos):

	1948	1949	1950
Exports	82.3	73.7	83.5
Imports	65.9	46.0	42.0

Leading exports in 1950 were sugar (47%), cacao (17%), coffee (15%) and tobacco (6%). Chief customers were the U. S. (44%) and Britain (42%). The main imports, mostly from the U. S., are cotton goods, iron and steel products, chemicals and machinery.

Transit facilities include about 170 miles of public railway, more than 600 miles of sugar plantation railway, and more than 3,000 miles of highway.

The 1951 budget totaled $74,606,200. The Republic's foreign debt was retired in July, 1947; the internal debt was $21,261,000 on June 30, 1951.

Mineral resources are limited and production is negligible. Some gold and gypsum are produced for export. The more readily accessible timberland has been thoroughly exploited, producing mahogany, lignum vitae and pine.

TOPOGRAPHY AND CLIMATE. Crossed from northwest to southeast by a mountain range with maximum elevations exceeding 10,000 feet, the country has fertile, well-watered land on the northeast side, where nearly two-thirds of the population lives. The southwest part is arid and with poor soil except around Ciudad Trujillo. The country has many good harbors.

There is little range in temperature, with mean January average of 74°, and August average of 81°. The elevated interior is cooler than the coastlands. Rainfall occurs mostly from May to November.

Ecuador (Republic)

(República del Ecuador)

Area: 104,510 square miles.
Population (census 1950*): 3,077,000 (60% pure Indian, 25% mestizo, 15% white).
Density per square mile: 29.4.
President: Galo Plaza Lasso.
Principal cities (est. 1947): Guayaquil, 212,025 (chief port); Quito (census 1947) 200,185 (capital); Cuenca, 57,873 (trading center); Riobamba, 30,634 (sugar, cereals).
Monetary unit: Sucre.
Languages: Spanish, Quéchua.
Religion: Roman Catholic.
* Preliminary.

HISTORY. Mostly forested and mountainous and a little larger than Colorado, Ecuador has a long history replete with the forceful rule of dictators. The Spanish under Francisco Pizarro conquered the land in 1532 by defeating the Inca Atahualpa. The first revolt against Spain occurred in 1809, but the victory was not complete until the Battle of Pichincha on May 24, 1822. Ecuador then joined Venezuela and Colombia in a confederacy founded by Simón Bolívar and known as Colombia, but withdrew amicably and became independent in 1830. The country's subsequent history has been largely one of dictatorships, notably under Juan José Flores, Gabriel García Moreno and Eloy Alfaro. Since 1900, administrations have fallen, usually by force, on the average of

every two years. Shortly before the 1944 elections, President Carlos Arroyo del Río was forcibly replaced by José Velasco Ibarra, recalled from exile in Argentina. Velasco Ibarra, confirmed in office by the voters later in the same year, followed the old pattern by assuming the role of dictator in 1946 and suppressing opposition.

Ibarra was deposed in Aug., 1947, and after three weeks of confusion Carlos Julio Arosemena took over as provisional president until Sept. 1, 1948, when Galo Plaza Lasso, victor in the June 6 elections, took office.

For more than a hundred years, Ecuador disputed its boundary with Peru, frequently resorting to arms. After hostilities started again in 1941, both nations submitted to mediation, and in 1944 Ecuador lost most of the disputed area. The dispute broke out anew in 1951.

GOVERNMENT AND DEFENSE. Under the 1946 (16th) constitution, Ecuador elects a president for four years by direct vote, and he is ineligible for further service until at least one term intervenes. The congress is bicameral, with a Senate and Chamber of Deputies. There are 17 provinces and one territory, the Galápagos Islands (3,029 sq. mi.), 650 miles off the coast.

Military service is compulsory at eighteen. The army numbers 10,000 and 40,000 reserves. A 1,030-ton training ship and several smaller craft make up the navy. There is an aviation school at Guayaquil and also a naval school at Salinas. To strengthen defenses of the Panama Canal, the U. S. built a base on Galápagos during World War II; it reverted to Ecuador in 1946.

SOCIAL AND ECONOMIC CONDITIONS. Education is free, compulsory and under state control, but illiteracy is very high—an estimated 60 per cent in 1948. School enrollment in 1948–49 was put at 264,271 in 3,425 public and private primary schools and at 18,015 in 127 secondary schools. There are universities at Quito (2), Guayaquil and Cuenca, and a law school at Loja.

Although agriculture is the basis of Ecuador's economy, less than 12,000,000 acres are devoted to it. Cacao, the chief crop (1950: 27,100 metric tons) is grown in the coastal regions and lower river valleys, along with rice, sugar cane, coffee, bananas, tobacco and cotton. The plateaus and mountain valleys are used for grazing and dairying, and raising cereals and potatoes. Ecuador's main manufactured product is the Panama hat, made of Toquilla straw.

Foreign trade (in millions of sucres):

	1948	1949	1950*
Exports	625	439	855†
Imports	671	623	560

* Provisional. † Port of Guayaquil only.

In 1950 the U. S. took 55 per cent of the exports and supplied 67 per cent of the imports. Chief exports were coffee (29%), cacao (29%) and bananas (15%).

Railway mileage in operation in 1949 was 698, all nationalized. The principal road connects the chief port, Guayaquil, with Quito. Highway mileage in 1947 was 2,712.

The 1951 budget was estimated at 500,-600,000 sucres. The foreign debt on Nov. 30, 1950, was $41,341,000; the internal debt, 121,528,000 sucres.

Ecuador mined 87,150 troy oz. of gold and 273,200 oz. of silver in 1950. Copper and lead also are mined. In 1950, 2,632,190 barrels of petroleum were produced. The country is the world's chief source of light, strong balsa wood, and exported 2,120 metric tons in 1949; but exports have declined steadily since 1943. Exports of rubber—1,968 metric tons in 1945—had dropped to 75 tons by 1947. Dye wood, cinchona bark, kapok and vegetable ivory are other products of the vast forest.

TOPOGRAPHY AND CLIMATE. Two high and parallel ranges of the Andes, traversing Ecuador from north to south, are topped by tall volcanic peaks including Chimborazo (20,577 feet) and Cotopaxi (19,344). The region between the mountains and the coast is rich but extremely hot and swampy; beyond the mountains to the east is the rainy, forested and tropical Amazon plain, largely uninhabited.

Though Ecuador, as its name implies, lies on the equator, its climate ranges from tropical and temperate to the Arctic conditions of its snow-capped peaks. Temperatures on the coast average 83°; on the Andean plateau, about 46° to 70°. The rainy season extends from December through April or May.

Egypt (Kingdom)

(Misr)

Area: approximately 383,000 square miles.

Population (est. 1949): 20,045,000 (1944: Egyptian, 95.4%; Arabian, 1.7%; Greek, .6%; others, 2.3%).

Density per square mile: 52.3.

Sovereign: King Farouk I.

Premier: Mustapha Nahas Pasha.

Principal cities (census 1947): Cairo, 2,100,506 (capital); Alexandria, 925,081 (chief port); Port Said, 178,432 (Suez Canal terminus); Tanta, 139,965 (railroad center, Nile delta); Mansûra, 102,709 (cotton).

Monetary unit: Egyptian pound (£E).

Language: Arabic.

Religions: Mohammedan, 91%; Christian (mostly Copt and Greek Orthodox), 7%; others, 2%.

HISTORY. Egypt, half again the size of Texas, and the largest and most influential of the Arab states, has been an object of big-power controversy for centuries.

Egyptian history dates back to about 4000 B.C., when the kingdoms of upper and lower Egypt, already highly civilized, were united. Egypt's "Golden Age" coincided with the 18th and 19th dynasties (16th to 13th centuries B.C.), during which the empire was established. Persia conquered Egypt in 525 B.C.; Alexander the Great subdued it in 332 B.C., and then the dynasty of the Ptolemies ruled the land until 30 B.C., when Cleopatra, last of the line, committed suicide and Egypt became a Roman province. From 641 to 1517 the Arab caliphs ruled Egypt, and then the Turks took it and made it part of their Ottoman Empire. Napoleon's armies occupied the country from 1798 to 1801. In 1805, Mohammed Ali, leader of a band of Albanian soldiers, became Pasha of Egypt, founding the present line of rulers. After completion of the Suez Canal in 1869, the French and British took increasing interest in Egypt.

British troops occupied Egypt in 1882, and British resident agents became its actual administrators, though it remained under nominal Turkish sovereignty. On Dec. 18, 1914, this fiction was ended and Egypt became a British protectorate.

Pressure by Egyptian nationalists forced Britain to declare Egypt an independent, sovereign state on Feb. 28, 1922, although the British reserved rights for the protection of the Suez Canal and the defense of Egypt. On Aug. 26, 1936, by an Anglo-Egyptian treaty of alliance, all British troops and officials were to be withdrawn, except from the Suez Canal zone. When World War II started, Egypt remained neutral. But it early became a strategic base for Allied forces, both because of its key location for countering German offenses in North Africa and because of the vital importance of the Suez Canal. British imperial troops finally ended the Nazi threat to Suez in 1942 in the decisive battle of El Alamein, west of Alexandria.

British troops were evacuated from Cairo and Alexandria in 1946, but Anglo-Egyptian negotiations for revision of the 1936 treaty broke down after British refusal to recognize Egyptian sovereignty over the Anglo-Egyptian Sudan. Egypt brought the problem before the U. N. Security Council on Aug. 5, 1947, but the Council advised resumption of direct negotiations.

In March, 1942, the Wafd (Nationalist) party won the elections and controlled the government until its cabinet was dismissed by the king in October, 1944. Ahmed Maher Pasha, leader of the Saadist party (an offshoot of the Wafdists), formed a coalition cabinet of all parties except the Wafd. He was assassinated on Feb. 24, 1945, while reading a declaration of war against the Axis. Mahmoud Fahmy el-Nokrashy Pasha, the Saadist foreign minister, succeeded him. He gave way to Ismail Sidky Pasha on Feb. 15, 1946, but returned to power on Dec. 10, 1946 with a Saadist-Liberal cabinet. He was assassinated Dec. 28, 1948, and was succeeded by Ibrahim Abdul Hadi Pasha who resigned on July 25, 1949 and, in turn, was succeeded by Hussein Sirry Pasha. The general elections of Jan. 3, 1950, resulted in an overwhelming victory for the Wafd party, and Mustapha Nahas Pasha assumed office as premier on Jan. 12.

Egyptian forces made a rapid advance into southern Palestine in May, 1948, but they bore the brunt of Israeli counter-attacks later in the year and were forced back in several areas prior to the Israeli-Egyptian armistice of Feb. 24, 1949.

RULER. King Farouk I, who was born Feb. 11, 1920, succeeded his father, Fuad I, on April 28, 1936. He was married on Jan. 20, 1938, to Farida Zulfikar, by whom he had three daughters and whom he divorced in November, 1948. On May 6, 1951, he was married to Narriman Sadek, daughter of a deceased government official.

Since succession is limited to the male line, the heir presumptive is Prince Mohammed Ali, born in 1875, a first cousin to the king.

GOVERNMENT AND DEFENSE. Egypt is a constitutional hereditary monarchy. The bicameral Parliament has a Senate of 177 members, two-fifths of whom are appointed by the king and the rest popularly elected for 10 years (half renewable every five years); and a Chamber of Deputies of 319 members popularly elected by universal male suffrage for five years unless sooner dissolved by the king. The king acts through a cabinet appointed by him but responsible to Parliament.

Elections for the Chamber of Deputies held Jan. 3, 1950, gave the Wafdists 228, Saadists 28, Liberals 26, National party 6, Socialists 1 and Independents 30.

Under the Anglo-Egyptian Treaty of 1936 the peacetime strength of British troops in the Suez Canal zone is set at 10,000, with 400 air force personnel, but no limit is set in time of war or international emergency. Military service for Egyptians is compulsory. The Egyptian army, strengthened and modernized during World War II, has about 160,000 men, including police units under military control. The air force has about 150 combat planes, and the navy has several small vessels.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory between the ages of 7 and 12. In 1947–48 there were 5,700 elementary schools with attendance of about 2,000,000, and 1,450 other schools with 170,000 students. The University Mosque of el-Azhar in Cairo (founded A.D. 972) is the chief theological seminary of the Moslem world. The University of Fuad I in Cairo (founded 1908) and the Univer-

sity of Farouk I in Alexandria (founded 1943) had 22,000 students in 1948–49, and three other universities had 12,540 students.

The majority of the people are Sunni Moslems. The Christians are mainly Copts with an admixture of Armenian, Syrian and Maronite sects. The population divides generally into fellahin (peasantry) and townspeople of the same blood, the Bedouin or nomad Arabs of the desert, and the Berbers, who occupy the Nile valley between Aswan and Dongola. The foreigners are chiefly Greeks (whose main center is Alexandria), French, British and Italians.

Egypt has one of the highest birth rates in the world (often more than 40 per 1,000 population) and one of the highest death rates. The density of the population in the small inhabited area in the Nile valley and delta (about 13,600 sq. mi.) is far greater than that of Belgium or Bengal.

Agriculture is the chief industry, engaging more than half the population. Only about 3.5 per cent (8,620,850 acres) of the total area is arable, and only about 6,040,000 acres are actually under cultivation, almost entirely in the Nile valley and delta. More than half the cultivated area comprises farms of less than 20 acres. Irrigation is indispensable to agriculture; the Aswan reservoir above the first cataract of the Nile holds up to 5,500,000,000 cubic meters of water and that of Gebel Aulia, in the Anglo-Egyptian Sudan, 2,000,000,000 cubic meters. In the delta and in middle Egypt, where perennial or canal irrigation is possible, two or three crops a year can be grown. The chief cash crop is cotton, of which Egypt is a leading producer.

Production statistics for 1950 were as follows: wheat was 1,018,000 metric tons; maize, 1,265,000 tons; rice (paddy), 1,166,000 tons; (1950–51) cotton, 369,000 tons; (1949) sugar, 191,000 tons.

Other crops include wheat, garden crops, dates and grapes. The pastoral industry is relatively unimportant except to the Bedouins in the eastern desert. In 1947 there were 1,317,639 cattle, 1,238,756 buffalo (used to turn water wheels for irrigation), 1,868,261 sheep, 1,473,840 goats, 196,084 camels and 1,124,961 donkeys.

Industry includes sugar refining, cotton ginning, cement manufacture, milling and pottery, soap and perfume making. The French-controlled Sugar Company of Egypt holds a monopoly on sugar refining.

Foreign trade statistics (in millions of Egyptian pounds):

	1948	1949	1950
Exports	143.1	137.9	175.4
Imports	160.3	166.5	196.5

In 1950, Egypt's chief customers were Britain (21%), India (12%), Italy (9%) and France (8%). Leading suppliers were Britain (21%), France (9%) and Italy (8%). Raw cotton (87%) and rice (4%) were the chief exports. Imports included machinery, vehicles, textiles, metals and manufactures, wheat and fertilizers.

Navigable throughout its course in Egypt, the Nile is used largely as a means of cheap transport for heavy goods. The principal port is Alexandria. Railway mileage in 1949 totaled 5,235. Branch lines link Cairo and Alexandria with Suez and nearly every town in the delta. Highway mileage was 8,870 in 1948. Cairo is a major airport. The merchant marine had 55 ships (100 tons and over), aggregating 102,126 gross tons, on June 30, 1950.

Preliminary budget estimates for the fiscal year 1951–52 placed expenditure at £E231,000,000 and revenue at £E212,000,000. The public debt was £E148,000,000 on Dec. 31, 1949.

The most important minerals are manganese ore (1949: 138,000 metric tons), phosphate (1949: 350,000 tons) and petroleum (1949: 15,965,000 barrels). Gold, iron ochres, nickel, sodium carbonate, sulfate talc and tungsten also are mined.

Egypt has no forests. Total value of fishery products is about £E2,000,000 annually, representing a catch of 50,000 metric tons. The chief fishing ground is Lake Menzala in the delta, but fish are also caught along the coast of the delta and in the Nile.

TOPOGRAPHY AND CLIMATE. Egypt, at the northeast corner of Africa, is a very rough square, with the historic Nile flowing northward through its eastern third. On either side of the Nile valley are desert plateaus, spotted with oases. In the north, toward the Mediterranean, plateaus are low, while south of Cairo they rise to a maximum of 1,015 feet above sea level. At the head of the Red Sea, at the northeast corner of Egypt, is the triangular Sinai peninsula, between the Suez Canal and Palestine.

The Nile delta starts 100 miles south of the Mediterranean and fans out to a sea front of 155 miles between Alexandria and Port Said. From Cairo north, the Nile branches into many streams, the principal of which are the Damietta and the Rosetta, joined by a network of canals.

Except for a narrow belt on the Mediterranean, Egypt lies in an almost rainless area, in which high daytime temperatures fall quickly at night. The mean temperature at Cairo varies between 53° in January and 84° in July; at Alexandria, between 57° in January and 81° in July. South of Cairo, pure desert conditions prevail; at Aswan the mean maximum temperature is 118°.

SUEZ CANAL. The Suez Canal, in Egyptian territory between the Arabian Desert and the Sinai peninsula, is an artificial waterway about 100 miles long between Port

Said on the Mediterranean and Suez on the Red Sea. Construction work, directed by the French engineer Ferdinand de Lesseps, was begun April 25, 1859, and the canal was opened Nov. 17, 1869. The cost was 432,807,882 francs. The concession is held by a French company, *Compagnie Universelle du Canal Maritime de Suez*, in which the British government holds 295,026 out of a total of 652,932 shares. The concession expires Nov. 17, 1968, when it will revert to the Egyptian government. An agreement signed March 7, 1949, provided for greater Egyptian participation in management and profits. On the board of management in 1951 were 1 Dutch, 1 American, 4 Egyptian, 16 French and 10 British directors.

SUEZ CANAL STATISTICS

Year	Ships	Net Tonnage	Receipts
1946	5,057	32,731,631	£12,246,300
1947	5,972	36,576,581	£13,147,200
1948	8,686	55,081,056	£E18,382,900
1949	10,420	68,861,548	£E22,869,700
1950	11,751	81,795,523	£E26,700,500

In 1950, 32.5 per cent of the tonnage was British, 14.1 per cent Norwegian, 10.1 per cent U. S., 9.6 per cent Panamanian, and 7.7 per cent French.

ANGLO-EGYPTIAN SUDAN — Status: Anglo-Egyptian condominium.
Area: 967,500 square miles.
Population (1949): 8,038,000.
Capital: Khartoum (pop. 1948: 71,400).
Governor General: Sir Robert Howe.
Foreign trade (1949): exports, £E27,400,000; imports, £E23,900,000. Chief export: raw cotton (69%).
Agricultural products: cotton seed, ginned cotton (1949: 55,000 metric tons); millet, sesame, wheat, peanuts.
Minerals: gold, salt.
Forest product: gum arabic (exports 1947: 25,968 metric tons).

About one-fourth the size of Europe, Anglo-Egyptian Sudan extends from north to south about 1,200 miles and west to east about 1,000 miles. Before the revolt against Egyptian rule by the Arabized tribes under Mohammed Ahmed (the Mahdi) in 1882–84, the region was known as Egyptian Sudan. Since its reconquest by the Anglo-Egyptian expeditions of 1896–98, it has been known by its present name. A governor general, appointed by the king of Egypt on British recommendation, is assisted by an executive council of 12 to 18 members.

During the 1946 treaty negotiations, Egypt demanded union of the area with the Egyptian crown, but important Sudanese groups favored complete independence. The aim of the British administration in Sudan was described as the establishment of self-government as a first step toward eventual independence. On June 19, 1948, the governor general published an ordinance which provided for an assembly of 75 members, 65 elected, with limited legislative powers in domestic affairs. Assembly elections held Nov. 16, 1948, were won by the native group favoring independence.

The northern region is a continuation of the Libyan Desert. The southern region is fertile, abundantly watered and, in places, heavily forested. It is traversed from north to south by the Nile, all of whose great tributaries are partly or entirely within its borders. The highest elevation is a mountain range parallel to the Red Sea, with heights of 4,000 to over 7,000 feet. Sudan is the chief source of gum arabic; the southern forests also are rich in fibers and tannins.

There are two trunk railways, one connecting Sudan with Egypt and the other affording access to the chief port, Port Sudan, on the Red Sea.

The whole country lies within the tropics and has an exceedingly hot climate—greatest in the central area and least in the desert zone, where the temperature range is large. At Khartoum the mean annual temperature is 80°, with January the coldest and June the hottest month.

Estonia

Area: 18,357 square miles.
Population (est. 1940): 1,126,415 (Estonians, 88%; Russians, 9%; Germans [Balts], 1%; others, 2%).
Density per square mile: 61.4.
Principal cities (est. 1938): Tallinn, 146,400 (capital); Tartu, 60,100 (university town); Narva, 24,200 (seaport).
Language: Estonian (Finno-Ugrian).
Religions: Lutheran, 78%; Greek Orthodox, 19%; others, 3%.

Born out of World War I, this small Baltic state enjoyed two short decades of independence before it was absorbed again by its powerful neighbor, Russia. In the thirteenth century, the Estonians had been conquered by the Teutonic Knights of Germany, who reduced them to serfdom. In 1521, the Swedes took over, and the power of the German (Balt) landowning class was curbed somewhat. But after 1721, when Russia succeeded Sweden as the ruling power, the Estonians were subjected to a double bondage—the Balts and the tsarist officials. The oppression lasted until the closing months of World War I, when Estonia finally achieved independence.

Shortly after the start of World War II, the nation was occupied by Russian troops and was incorporated as the 16th republic of the U.S.S.R. in 1940. Germany occupied the nation from 1941 to 1944, when it was retaken by the Russians. Most of the nations of the world, including the U. S. and Great Britain, have not recognized the Soviet incorporation of Estonia.

Ethiopia (Kingdom)
(Abyssinia)

Area: 350,000 square miles.
Population (est. 1948): 8,000,000 (Abyssinian [Amhara], 20%; Galla, 50%; others, 30%).
Density per square mile: 22.9.
Ruler: Emperor Haile Selassie I.
Prime Minister: Bitwoded Makonnen Endalkatchau.
Principal cities (est. 1948): Addis Ababa, 250,000 (capital); Harar, 45,000 (coffee); Dessie, 35,000 (grain center); Dire Dawa, 30,000 (railway workshops).
Monetary unit: Ethiopian paper dollar.
Languages: Amharic, Arabic.
Religions: Copt (Christian), Mohammedan.

HISTORY. Ethiopia, a land-locked African kingdom more than twice the size of California, was one of the first victims of the Axis aggression that culminated in World War II. Italy, after creating fake border incidents, invaded the country on Oct. 3, 1935, and Addis Ababa fell on May 5, 1936. Haile Selassie, the emperor, fled the country, and the Italians welded Ethiopia, Italian Somaliland and Eritrea into the colony of Italian East Africa.

World War II brought early liberation; Ethiopia, in fact, was the first of the Axis-occupied nations to be retaken by the Allies. British and Ethiopian troops reconquered the country in 1941, with the final Italian surrender occuring on Nov. 27. During a transition period thereafter, the nation was under dual Anglo-Ethiopian control. Under an agreement signed on Jan. 31, 1942, British troops quit the country except for stipulated border areas. The latter were evacuated in Aug., 1948.

After the war, the country launched a modernization program in agriculture, industry and education. Irredentist claims to the ex-Italian colonies and former Ethiopian provinces, Eritrea and Somaliland, began to be voiced in 1946. In December, 1950, the U. N. General Assembly voted to federate Eritrea with Ethiopia under the sovereignty of the Ethiopian crown.

The Ethiopian royal family claims descent from the Queen of Sheba and from Menelek, a son of King Solomon. Christianity was introduced about A.D. 330, and after the Arab conquest of northern Africa in the 7th century, Ethiopia was more or less cut off from the outside world for a thousand years. When Theodore III proclaimed himself emperor in 1853, the country was a conglomeration of autonomous provinces under hereditary chiefs who were usually at war with one another. Menelek II, who ascended the throne in 1889, brought Ethiopia under single rule, and his forces finished off a five-year Italian attempt at invasion with a great massacre at Aduwa on March 1, 1896. Revenge for this massacre was one of Mussolini's great war cries in the 1935–36 invasion.

GOVERNMENT. Ethiopia's ruler, Haile Selassie I, was born on July 17, 1891, crowned king on Oct. 7, 1928, and emperor on Nov. 2, 1930. His eldest son, the crown prince and heir apparent, is Asfa Wassan, born on July 27, 1916. The emperor directly controls the government, though there now is a Council of Ministers, a Senate and a Chamber of Deputies. All members are appointed by the monarch, however.

In wartime, military service is compulsory. The small Ethiopian standing army is equipped and trained by a British military mission. A small Ethiopian force was dispatched to Korea in 1951.

SOCIAL AND ECONOMIC CONDITIONS. The education system is extremely backward. Foreign missions or the government maintain schools in the principal towns, and several secondary schools recently have been set up. In 1948, there were 390 primary schools with 35,000 pupils and 3 secondary schools with 450. The Coptic Church (Christian), with its numerous priests, exercises powerful influence and owns much Ethiopian land. It became independent of the Coptic Archbishop of Alexandria in 1946. Moslems, numerous in frontier regions, have their religious center at Harar. The towns of Ethiopia are scattered and crudely built.

Ethiopia is generally fertile, predominantly agricultural and pastoral, with many regions yielding two crops a year. The chief crops are maize, wheat, barley, rye, cotton, sugar cane, millet, hemp, vegetables, coffee and teff (the common bread grain). The country's inadequate transport system, however, makes crop growing largely a local industry.

The country grazes several million cattle, and many goats and sheep. Horses and mules are bred extensively as pack animals and mounts. There is little manufacturing except for small native industry, although the Italians built some industrial plants during their five-year occupation.

Recent trade data (for years beginning Sept. 11, in millions of Ethiopian dollars):

	1947–48	1948–49	1949–50
Exports*	85.4	77.2	68.3
Imports	105.0	91.0	74.7

* Excluding specie.

Chief exports in 1949–50 were coffee (47%), hides and skins (22%) and cereals (9%). Cotton goods and yarn accounted for 38 per cent of the imports.

The 486-mile track from Addis Ababa to Djibouti in French Somaliland is Ethiopia's only rail outlet and its principal trade route. Motorable roads, non-existent until about 1925, now include about 1,000 miles built by the government, and 4,340 miles built during the Italian occupation. The long rainy season makes road main-

tenance difficult, and air traffic has become increasingly important, especially as a means of communication with foreign commercial centers. The National Ethiopian Line serves internal and neighboring areas.

Ethiopia is seeking the help of foreign architects in the modernization of Addis Ababa, which, since the days of Menelek, has been a sprawling town of mud huts and tin roofs.

The 1947 budget was estimated to balance at approximately Eth.$50,000,000.

Gold, produced from placer mines worked by natives in the south and west, is Ethiopia's main mineral. Platinum also is mined in fair commercial quantities. Other minerals are rock salt, cinnabar, copper, iron, mercury, mica, potash and sulfur. Oil deposits are believed to exist, and all drilling rights have been sold to the Sinclair Refining Company of the U. S.

Vegetation is dense in the valleys and lowlands, but the plateau is comparatively bare, especially in the north. The forests contain many valuable trees, including the Natal yellow pine.

TOPOGRAPHY AND CLIMATE. Over its main plateau-land, Ethiopia has several high mountains; Dashan, the tallest peak, towers to 15,158 feet northeast of Lake Tana. Most of the many rivers are rapid, not navigable, and flow into the Nile. The Blue Nile, or Abbai, rises in the northwest and flows in a great semicircle east, south and northwest before entering Sudan. Its chief reservoir, Lake Tana, lies in the northwestern part of the plateau.

Ethiopia, lying wholly within the tropics, escapes a torrid climate because of its elevation, although the lowlands are hot. The mean annual range of temperature is between 60° and 80°, although Alpine conditions prevail in the higher mountains. The dry season lasts generally from October to June, the wet season from June to September.

Finland (Republic)

(Suomen Tasavalta)

Area: 130,160 square miles.
Population (census 1950): 4,028,910* (Finnish, 91%; Swedish, 9%).
Density per square mile: 30.9.
President: Juho K. Paasikivi.
Premier: Urho K. Kekkonen.
Principal cities (census 1950*): Helsinki, 363,834 (capital); Tampere, 103,043 (textiles, paper); Turku (Åbo), 101,239 (seaport; shipbuilding); Lahti, 44,759 (glass, lumber); Pori, 43,137 (timber).
Monetary unit: Markka (FM).
Languages: Finnish, Swedish.
Religions (1937): Evangelical Lutheran, 97%; Greek Orthodox, 1.7%; Roman Catholic, .02%; others, 1.28%.

* Preliminary figures.

HISTORY. The Finns, a people of possibly Mongolian origin, first settled their Montana-sized area about A.D. 100. King Eric IX of Sweden conquered them about 1155 and introduced Christianity. Under Swedish rule, which lasted for 650 years, the Finns retained considerable autonomy and were given their own parliament in the 17th century.

Political pressure growing out of the Napoleonic Wars forced Sweden in 1809 to cede Finland to Russia, which gave the Finns a constitution and set them up as a grand duchy. Out of the chaos and complexities of World War I, the Russian revolution of 1917 and a Finnish civil war in 1918 between "Reds" and "Whites" led by Baron Carl G. von Mannerheim, Finland emerged as a republic in 1919. A year later Russia ceded to Finland the Petsamo area with its ice-free Arctic port.

For the next twenty years Finland was generally orderly and prosperous except for vigorous suppression of Communists and a bloodless rightist uprising in 1932. The national presidents during this period were K. J. Ståhlberg, 1919–25; Lauri Relander, 1925–31; P. E. Svinhufvud, 1931–37; and K. Kallio, 1937–40.

In Nov., 1939, the Russians attacked Finland to enforce territorial demands. The sturdy Finns stood off large-scale Red Army assaults for 105 days, but finally lost and ceded to Russia 10 per cent of the nation's area, including the Karelian isthmus. Under German pressure and somewhat in a spirit of revenge, the Finns joined the Nazis against Russia in 1941—and lost again.

Risto Ryti, a pro-German who succeeded Kallio as president in 1940, was forced to resign on Aug. 1, 1944, and was replaced by Baron Carl G. von Mannerheim (who had led Finnish forces in both wars with the U.S.S.R.) Finland severed relations with Germany on Sept. 2, signed an armistice and concluded a provisional peace treaty with Britain and Russia, Sept. 19. The U. S. had not declared war on Finland.

Pro-Russian Juho K. Paasikivi became premier on Nov. 11, 1944, and when Mannerheim resigned because of illness on March 4, 1946, Paasikivi was elected by the Diet to fill the unexpired presidential term. The premiership went to Mauno Pekkala, leader of the new Socialist Unity Party, advocating cooperation with Communists.

Since then the Finns, burdened by the heavy reparations load, have made good progress in rehabilitating their war-torn areas and industrial plants. Politically they have steered a cautious but realistic course acceptable to the Soviet Union, in whose orbit the country now must turn. Political liberty has been preserved to a surprising extent despite widely differing factions ranging from extreme left to far right.

The Communists and their allies lost ground in the July, 1948, parliamentary election and on July 29, Karl August Fagerholm formed a Social Democrat government in which the leftist bloc was not represented. Paasikivi was re-elected for a full 6-year term in Feb., 1950, and on Mar. 17, Fagerholm was succeeded as premier by Urho Kekkonen at the head of a centrist minority cabinet. The Communists retrieved part of their losses in the July, 1951, parliamentary elections.

GOVERNMENT. Under the 1919 constitution, the 200 Diet members are popularly elected by a proportional representation system for three-year terms. The president, normally chosen for six years by an electoral college of 300 members nominated by the people, acts through his Cabinet headed by the prime minister. Suffrage is universal. Because of the many political parties, government usually is carried on by a coalition, with frequent cabinet changes.

Party standing in the Diet after the July, 1951, elections was as follows (1948 standing in parentheses): Social Democrats, 53 (54); Agrarian, 52 (56); Communists, 45 (38); Conservatives, 26 (28); others, 24 (19).

PEACE TREATY OF 1947. The final peace treaty became effective Sept. 15, 1947; it confirmed the de facto cession to the U.S.S.R. of the Petsamo area, Viipuri and the Karelian region and also of the Porkkala-Udd area west of Helsinki for use as a Soviet naval base. Finland was to pay reparations of $300,000,000 in kind (reduced to $225,000,000 by the U.S.S.R. in 1948) over a period of eight years from Sept. 19, 1944, and was to make two-thirds compensation to United Nations nationals for wartime property loss.

The treaty limited Finnish defense forces to the following strengths: army, 34,400 personnel; navy, 4,500 personnel and a tonnage of 10,000; and air force, 3,000 personnel and 60 aircraft. The possession of bombers, submarines, atomic weapons and motor torpedo boats is prohibited.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is very low (.9% beyond the age of 15). Education is compulsory from 7 to 15. In 1947 there were 5,520 elementary schools with 453,000 students, and 279 secondary schools with 82,000 pupils. There are three regular universities, of which Helsinki has the largest enrollment (10,400 in 1949).

About 60 per cent of the total population is engaged in agriculture, 17 per cent in mining and industry, 3.8 per cent in transport, 4.3 per cent in commerce, 2 per cent in professions and 11 per cent in miscellaneous occupations. Considerable progress has been made in social legislation, including workmen's compensation. The cooperative movement is extensive. By a 1927 law, expropriation of large estates was carried out, with compensation to their owners.

Only about 3 per cent of the land is under cultivation, and about 5 per cent in grassland. The chief crops (with estimated 1950 production in metric tons) are oats, 722,307; barley, 186,629; rye, 233,867; potatoes, 1,210,080. Grazing lands are extensive. In 1950 there were 1,844,100 cattle, 1,329,900 sheep, 469,870 hogs and (1947) 95,601 reindeer.

The leading Finnish manufactures are wood and paper (about one-third the total value), food, luxury items, machinery and textiles. Following the cession of the Karelian isthmus and the city of Viipuri to the U.S.S.R., Finland lost valuable manufacturing areas. Helsinki is the principal industrial center.

Trade statistics, in billions of markkas:

	1948	1949	1950
Exports	68.05	77.83	89.27
Reparations*	11.55	12.23	7.85
Imports	66.44	66.28	89.11

* Included in export totals.

Leading free exports in 1950 were wood and wood products (44%), wood pulp (23%) and paper and products (20%). Leading suppliers were Britain (16%) and Poland and the Netherlands (each 8%). Chief customers were Britain (22%), the U. S. (9%) and the Netherlands (8%).

According to *Lloyd's Register*, the merchant marine on June 30, 1950, had 329 ships (100 tons and over) aggregating 502,911 gross tons. The numerous lakes, many joined by canals, are busy transport routes. About 40,000 vessels and 18,000 timber rafts use the canals annually. There were approximately 19,700 miles of highway in 1946 and 17,500 miles of secondary roads. Railway mileage in 1949 totaled 3,533, almost entirely nationalized.

Recent public finance data are as follows (in billions of markkas):

	1949	1950*	1951*
Revenue	109.9	104.5	129.9
Expenditure	112.8	104.4	129.9

* Budget estimate.

The total public debt was estimated at 137,369,000,000 FM on June 30, 1950, as compared with 4,074,200,000 FM in September, 1939.

Finland has no coal or oil, and many of its ore deposits are remote from transportation. Finland's sulfide ore (production in 1949: about 618,000 metric tons) is 4 per cent copper, 26 per cent sulfur and 27 per cent iron, with some zinc, cobalt, gold

and silver. Limestone, soapstone and red granite deposits are extensive, and uranium deposits are believed to exist. Wood and peat are the only natural fuels.

More than a third of Finland is covered with high quality timber, the nation's richest natural resource. Timber production in 1949 totaled about 840,000 standards of 161 cu. ft. each, cellulose, 1,015,025 metric tons and mechanical pulp 598,226 tons. Production of paper was 521,000 tons and cardboard 105,000 tons.

Finns have fished for centuries, not commercially, but for domestic consumption. The 1949 catch was 65,700 metric tons.

TOPOGRAPHY AND CLIMATE. Finland stretches 700 miles from the Gulf of Finland on the south to Soviet Petsamo, north of the Arctic Circle. Off the southwest coast are the Åland Islands (approximately 300), controlling the entrance to the Gulf of Bothnia. Finland has more than 60,000 lakes. Of the 1939 area, 11 per cent was lake and 48 per cent swampland. Of the few rivers, only the Oulu (Uleå) is navigable to any important extent. Most of the country is tableland 400 to 600 feet above sea level, with a rise to 4,115 feet in the Halditjokko region of the northwest.

Finland's long severe winters are moderated somewhat along the coast by prevailing southwest winds, but the summer lasts only about two and a half months. Southerly Finnish ports are icebound part of the year. Rainfall is light, with the driest months from May to September.

France (Republic)

(République Française)

Area: 212,741 square miles.
Population (est. Jan. 1, 1950)[1] 42,000,000 (1946: French, 94.2%; others, 5.8%).
Density per square mile: 197.4.
President: Vincent Auriol.
Premier: René Pleven.
Principal cities (est. 1948): Paris, 2,800,000 (capital); Marseille, 700,000 (chief port); Lyon, 470,000 (silk, metal manufacture); Toulouse, 285,000 (tobacco; commercial center); Bordeaux, 250,000 (wine; seaport); Nice, 235,000 (resort center); Nantes, 210,000 (manufacturing).
Monetary unit: Franc.
Religion (est.): Roman Catholic, 97.5%; Protestant and others, 2.5%.

HISTORY. One of the world's great centers of culture, art and learning, France was bled and devastated in World Wars I and II and emerged in mid-1944 after more than four years of Nazi occupation as a shattered nation.

France was ancient Gaul when Julius Caesar conquered a part of it in 57–52 B.C.; for several centuries thereafter it was bound to the Roman Empire. In the 5th century A.D., it was overrun by the Franks and other barbarian tribes. Between 768 and 814, Charlemagne created a Frankish empire covering most of Western Europe, but by the time Hugh Capet came to the throne in 987, his kingdom comprised only the region around Paris. For more than 300 years the Capets struggled to unify the many feudal fiefs.

Philip VI, cousin of the last Capet and first of the House of Valois, took the throne in 1328. Soon thereafter began the Hundred Years' War (1338–1453), the struggle over England's bid to seize the French crown. The English won at Crécy in 1346 and at Agincourt in 1415, but were defeated at Orléans in 1429 by the French forces led by Joan of Arc. Cruel persecution of French Protestants, the Huguenots, was followed by civil war and then the Edict of Nantes in 1598, by which the Huguenots received complete religious freedom from Henry IV, first of the Bourbons.

Splendor, wealth and the establishment of a colonial empire marked the long reign of Louis XIV from 1643 to 1715. Extravagance, however, forced Louis XVI to struggle with the problem of taxation at a time when the forces of revolution were coming to a head among France's lower and intellectual classes. The French Revolution, of world significance for its impact on absolute rule, broke out in 1789. Louis XVI was deposed in 1792 and executed the next year. Then came the Reign of Terror as the revolution swung to excess, the Directory from 1795 to 1799, and the Consulate from 1799 to 1804, after which Napoleon was proclaimed emperor. Meanwhile, French armies were engaged on all sides, spreading French hegemony over most of western and central Europe. The final downfall came at Waterloo on June 18, 1815.

The restored Bourbon, Louis XVIII, reigned until 1824 and was succeeded by his reactionary brother, Charles X, who was overthrown in the revolution of 1830. His successor, Louis Philippe, was unseated in 1848, and succeeded by Napoleon's nephew, Louis. Inaugurated president of the Second Republic in 1848, Louis Napoleon became emperor as Napoleon III in 1852 but abdicated after France's defeat in the Franco-Prussian War of 1870–71. The resultant conflict between republicans and monarchists was resolved by the adoption of a republican constitution in 1875, which established the Third Republic to replace the provisional Republic set up in 1871.

Victorious with the Allies in World War I under Premier Georges Clemenceau, France emerged as the dominant power on the continent. From 1919 on, its aim was to keep Germany weak through a system of military alliances and by maintaining a strong French army.

FRANCE AND THE FRENCH UNION

Country	Area, sq. mi.	Population, estimated
France	212,741	42,000,000 (1950)
Africa		
French Equatorial Africa	969,111	4,346,000 (1949)
Chad	495,752	2,011,000 (1946)
Gabon	103,089	423,000 (")
Middle Congo	132,046	631,000 (")
Ubangi-Shari	238,224	1,065,000 (")
Cameroun	170,230	3,011,000 (1949)
Algeria	851,078	8,751,000 (")
Morocco	153,870	8,594,000 (")
Tunisia	60,209	3,387,000 (")
French West Africa	1,805,287	16,375,000 (")
Dahomey	44,749	1,474,000 (")
French Guinea	108,455	2,130,000 (")
French Sudan	461,389	3,137,000 (")
Haute Volta	121,892	3,044,000 (")
Ivory Coast	129,807	2,031,000 (")
Mauritania	364,092	524,000 (")
Niger	493,822	2,041,000 (")
Sénégal	81,081	1,994,000 (")
Togo	21,235	972,000 (")
French Somaliland	8,376	47,000 (")
Madagascar and dependencies	229,438	4,160,000 (1948)
Réunion	970	252,000 (1949)
America		
St. Pierre and Miquelon	93	4,354 (1945)
French Guiana	34,740	35,000 (1949)
Guadeloupe	686	281,000 (")
Martinique	427	268,000 (")
Asia		
French India	197	317,000 (1948)
State of Viêt-Nam	127,259	22,973,000 (1949)
Cambodia	53,668	3,279,000 (")
Laos	91,428	1,208,000 (")
Oceania		
French Pacific Settlements	1,545	50,000 (")
New Caledonia and dependencies	7,654	59,000 (")
New Hebrides	4,633	49,000 (")

The effort was a dismal failure. At home France was weakened by economic and political instability, with many short-lived cabinets. Germany became a dictatorship, with the full national energy bent toward war. The Third French Republic, permitting political freedom, bickered and argued away its years. The leftist "Popular Front" coalition cabinets of Léon Blum (1936–37) and Camille Chautemps (1937–38) were succeeded by the Radical and Radical-Socialist cabinet under Édouard Daladier, one of the men of Munich.

Paul Reynaud took Daladier's place on March 21, 1940, less than seven months after the start of World War II. In May, 1940, Hitler's armies finally poured into France and on June 16, the reins of government fell to Marshal Henri Philippe Pétain, who opposed continuation of the war. An armistice with Germany was signed June 22, dividing France into occupied and unoccupied zones. The Third Republic was voted out of existence on July 10 by the National Assembly at Vichy, and Unoccupied France became totalitarian, with Pétain as chief of state.

Meanwhile, in London, General Charles de Gaulle had formed on June 18, 1940, a provisional French National Committee which received British recognition and represented the interests of free Frenchmen. De Gaulle's government-in-exile was moved to Algiers in June, 1943, as the French Committee for National Liberation.

After the liberation of Paris, De Gaulle formed a provisional government in the capital on Sept. 10, 1944. It remained in power as a theoretically non-political régime until the elections of Oct. 21, 1945, when a National Assembly was selected to draw up a new constitution and serve as

an interim legislative body. De Gaulle was named provisional President on Nov. 13 but resigned soon after and was succeeded by Félix Gouin, a Socialist, on Jan. 23, 1946.

A proposed constitution providing for a strong legislature and weak executive was rejected by the electorate on May 5, 1946. The new National Assembly, elected June 2, named Popular Republican Georges Bidault as interim President. France's new constitution was approved by a narrow margin on Oct. 13, and the Fourth Republic formally took shape early in 1947 with the election of Socialist Vincent Auriol as President, Jan. 16, and the confirmation of Socialist Paul Ramadier as Premier, Jan. 22.

Ramadier was succeeded on Nov. 22, 1947, by Robert Schuman, a Popular Republican. Socialist demands for reducing the armed forces budget forced Schuman's resignation on July 19, 1948; he was succeeded by Radical-Socialist André Marie. Marie resigned late in August and Schuman formed another cabinet, which lasted approximately 64 hours. Henri Queuille, another Radical Socialist, replaced Schuman on Sept. 7. Under his leadership the nation made important progress. In Oct., 1949, he resigned over a wage-price controversy and was succeeded by Georges Bidault, whose resignation in June, 1950, was followed by a cabinet crisis in which a new government formed by Queuille lasted only three days. René Pleven formed a cabinet which was approved by Parliament on July 13, 1950.

On March 9, 1951, Queuille took over again. In indecisive elections held June 17, 1951, Gen. de Gaulle's followers won the largest single block of assembly seats. It was not until Aug. 11 that a cabinet formed by Pleven received National Assembly approval.

GOVERNMENT. Under the constitution approved Oct. 13, 1946, France is a secular, democratic and social republic. The dominant power in the new Republic is the National Assembly, whose members (627 in 1951) are elected by universal direct suffrage. There is also a Council of the Republic of 320 members elected by a complicated indirect procedure requiring 8 different elections. This house has only advisory and delaying powers and is definitely subordinate to the Assembly. The two Houses together elect the President of the Republic for a 7-year term, but his choice of a Premier and the latter's choice of cabinet ministers require Assembly ratification. All ministers are collectively responsible to the Assembly for the general policy of the Cabinet and are individually responsible for their personal actions.

The National Assembly elections of June 17, 1951, divided the 627 seats as follows: De Gaullists 118, Socialists 104, Communists 103, moderate right-wing parties 98, Radical Socialists and affiliates 94, Popular Republicans 85, overseas deputies 23 (2 vacancies). The Communists polled 26.5% of the popular vote, De Gaullists 21.7% and Socialists 14.5%.

The Cabinet formed Aug. 11, 1951, contained 7 Popular Republicans, 6 Radical Socialists, 2 Democratic Union and 9 Independents and minor-party members. Communists have been excluded from the government since April 30, 1947.

GOVERNMENT OF OVERSEAS TERRITORIES. The French constitution of 1946 provided for establishment of the French Union, consisting of the French Republic (metropolitan France and the overseas departments, territories and trusteeships) and the associated territories and states. The overseas departments are Algeria (three departments), Martinique, Guadeloupe, French Guiana and Réunion.

The overseas departments and territories are represented in the National Assembly by 75 deputies and in the Council of the Republic by 65. In addition the constitution provided for creation of a high council, consisting of nominees of the French government and of the associated states, and an Assembly of the French Union, with power that is mainly advisory. The Assembly, which met for the first time on Dec. 10, 1947, consists of 240 delegates, 120 of whom are elected by the French parliament, 75 by territorial assemblies overseas, and 45 by the associated states.

Article 61 of the constitution provides that the position within the Union of the associated states—tentatively described as French Morocco, Tunisia and the Federation of Indo-China—is "settled for each of them by the act which defines their relations with France." Thus far, both Morocco and Tunisia have declined to modify their protected status in favor of a closer bond with France. Viêt-Nam, Laos, and Cambodia, in Indo-China, have become associated states.

DEFENSE. French armed forces in 1951 (including gendarmes) totaled about 717,000 men, recruited under a conscription system providing for 18 months service. The total was to be raised to 953,000 by 1953 under a 3-year rearmament program. The army had about 500,000 men. Forces outside France included about 60,000 in Germany, 7,000 in Austria, 100,000 in North Africa, 150,000 in Indo-China and a small unit in Korea. Air-force strength was about 100,000; that of the navy, about 65,000. On Dec. 31, 1950, the navy had one light carrier, one escort carrier, 2 battleships, 8 cruisers, 4 coast-defense ships, 17 destroyers, 12 submarines, 25 frigates and escort vessels and several hundred smaller craft.

EDUCATION. State elementary schools in 1949 numbered 69,838, with 3,921,000 students. There were also 10,932 private schools, with 961,700 students. Secondary education for boys is provided in *lycées*, classical and modern schools maintained by the state (589 in 1947 with 256,820 students), communal colleges and free schools. Girl students enrolled in *lycées* and classical and modern schools numbered 170,188 in 390 institutions in 1947.

Higher education is provided chiefly in the universities, of which there are 17, with total enrollment of 128,754 in 1948–49. The University of Paris is largest, with an enrollment of more than 50,000.

RELIGION. The predominant faith is Roman Catholicism, but Church and State were separated in 1905. Diplomatic relations with the Vatican were resumed in 1921, and lesser church property was returned to diocesan associations in 1924.

POPULATION. The people are not homogeneous, varying from section to section. During the inter-bellum period, the population remained almost static, with an increase of only 72,133 from 1931 to 1936 and a decrease of 3.3 per cent from 1936 to 1946. The birth rate also fell sharply (1925: 19.6; 1936–38 annual average: 14.8), but the end of World War II saw an uptrend, with an estimated rate of 21.0 in 1947, 20.8 in 1948, 21.0 in 1949 and 20.7 in 1950.

AGRICULTURE. The national economy of France is predominantly agricultural. Of the total area, approximately 40 per cent is ordinarily devoted to crops, 20 per cent to forests, 3 per cent to vines and two per cent to market and other gardening. The vast majority of holdings are small farms worked by the owners. France normally is almost self-sufficient in basic foodstuffs and leads the world in wine production.

Production of major crops, in metric tons, was estimated as follows in 1950: wheat, 7,332,000; rye, 591,000; barley, 1,572,000; oats, 3,215,000; maize, 321,000; sugar beets, 11,555,000.

Other important crops are potatoes, berries, fodder beets, fruits, hay, nuts and turnips. Silk culture once thrived in the lower Rhône valley, but production fell sharply between wars. Milk, butter and cheese are important as exports. Livestock in Oct., 1949, included 15,432,000 cattle, 7,510,000 sheep, 6,424,000 hogs and 1,282,000 goats. Wine production in 1950 was 1,619,423,000 U. S. gallons.

INDUSTRY. Principal industrial areas are Paris, Artois, Lower Seine and Lyon; the textile industry is concentrated in the north. Leading manufactures are iron, steel, chemicals, textiles, automobiles, machinery and beet sugar. Industrial production in 1950 was estimated at 113 per cent of 1937 totals.

FRENCH INDUSTRIAL PRODUCTION

Monthly averages, 1949 and 1950, in metric tons

Product	1949	1950
Pig iron and ferroalloys	695,000	647,000
Steel ingots and castings	763,000	721,000
Cement	556,000	618,000
Passenger cars	15,640*	21,440*
Cotton yarn	19,000	20,900
Wool yarn	10,200	10,600
Rayon yarn	3,870	3,770
Electricity	2,380†	2,623†
Manufactured gas	204‡	202‡

* Units. † Millions of kwh. ‡ Millions of cu. m.

TRADE. Foreign trade statistics, in billions of francs, are as follows:

	1948	1949*	1950*
Exports	431.2	783.9	1,072.6
Imports	654.3	926.3	1,072.7

* Including the Saar.

Principal suppliers in 1950 were the French Union (26%), the U. S. (12%), Germany (7%), Belgium (5%) and Britain and Australia (each 4%). Leading customers were the French Union (36%), Britain (9%), Germany (8%), Belgium (6%) and the U. S. (4%).

Exports in 1950 totaled 34,303,000 metric tons (1949: 26,963,000 tons); imports amounted to 39,085,000 tons (1949: 46,072,000 tons).

COMMUNICATIONS. The French merchant marine had 1,234 ships (100 tons and over) aggregating 3,206,504 gross tons on June 30, 1950, according to *Lloyd's Register*—fifth largest in the world on that date. Losses during World War II were heavy.

There are about 5,500 miles of navigable waterways, including canals, with a traffic of 33,525,000 metric tons in 1949. There are approximately 550 inland navigation ports, of which Paris, Rouen and Strasbourg each normally handle more than one million tons annually (Paris, more than ten million tons). Railway mileage in 1949 totaled 25,550. Railroads were merged in 1938 into the *Société Nationale des Chemins de Fer Français*, of which the government acquired controlling interest. Highway mileage in 1949 was 428,000, including 50,000 miles of national highways. Telephones totaled 2,318,673 on Jan. 1, 1950. Air France, nationalized on Jan. 1, 1946, operates on a world-wide basis.

FINANCE. France's postwar financial position has been extremely unstable. Recent data are as follows (in billions of francs):

	1949	1950*	1951*
Revenue	1,498	1,753†	1,875†
Expenditure	2,173	2,243	2,728

* Budget estimate. † Tax revenue.

On Sept. 30, 1949, the internal debt was 2,662,900,000,000 fr.; the external debt, 1,181,900,000,000 fr.

On Dec. 2, 1945, the Bank of France and four large private banks were nationalized, and commercial credit came under government supervision.

TOPOGRAPHY. With a maximum length of about 600 miles and a width of 550 miles, France is second in size to Russia among Europe's nations. Its coastline is about 1,950 miles. In the Alps near the Italian and Swiss borders is France's highest point—Mont Blanc, 15,781 feet. The forest-covered Vosges Mountains are in the northeast and the Pyrenees are along the Spanish border. Except for extreme northern France, which is part of the Flanders plain, the country may be described as four river basins and a plateau. Three of the streams flow west—the Seine into the English Channel, the Loire into the Atlantic, and the Garonne into the Bay of Biscay. The Rhône flows south into the Mediterranean. For about a hundred miles, the Rhine is France's eastern border. West of the Rhône and northeast of the Garonne lies the Central Plateau, covering about 15 per cent of France's area, and rising to a maximum elevation of 6,188 feet. In the Mediterranean, 115 miles east-southeast of Nice, is Corsica, the island of Napoleon's birth, with an area of 3,367 square miles.

MINERALS. French coalfields, most extensive in the northeast, ordinarily supply about 70 per cent of domestic needs. Lorraine, Anjou and Normandy have valuable iron ore deposits. Provence has bauxite. Alsace has potash and oil. Limousin has kaolin, zinc, lead and tar.

Production in 1950 included coal, 50,711,000 metric tons; iron ore, 30,000,000 tons; (1949) lead (smelter.), 54,500 tons; potash, 900,000 tons; petroleum, 410,000 barrels.

FORESTS AND FISHERIES. France, with over 26,000,000 wooded acres, produces well over $100,000,000 worth of forest products in a normal year, including resin, turpentine, timber and nuts. The annual fish catch (434,600 metric tons in 1948) is among the largest in Europe. Cod and sardines are usually the biggest items; others are coalfish, herring, whiting, mackerel, tunny, lobster, oysters, rays, flounder and sole.

CLIMATE. France's climate is temperate but varies from long cold winters and hot summers in the northeast, to the subtropical temperature of the Mediterranean coast with very mild winters. With no high western elevations to block moisture-laden winds from the Atlantic, all France has adequate rainfall of 20 to 30 inches a year. The mean annual temperature at Paris is 50.5° (36.5° in January and 65.5° in July). The rainiest months are June and October, with February usually the driest.

Andorra

This 191-square mile autonomous and semi-independent state on the Franco-Spanish border has been under the joint suzerainty of the French State and the Spanish bishops of Urgel since 1278. It is a cluster of mountain valleys inhabited by about 5,200 hardy and traditionally independent people whose principal pursuit is the tending of flocks. Catalán is the language spoken, and both French and Spanish currency are in use. Andorra is governed by a Council General of 24 members, elected for four years by the heads of families. A First Syndic, chosen by the Council, constitutes the supreme executive authority.

French Overseas Territories

AFRICA

Algeria (Part of Metropolitan France)

(L'Algérie)

Governor General: Edmond Naegelen.
Principal cities (census 1948): Algiers, 315,210 (capital); Oran, 256,661 (seaport); Constantine, 118,774 (trading center); Bône, 102,823 (seaport; phosphates).
Monetary unit: French franc.
Languages: Arabic, French.
Religions: Mohammedan (natives), Roman Catholic, Jewish.

HISTORY. Algeria, more than three times the size of Texas and situated on the northern bulge of Africa, was of great strategic importance during World War II. After U. S. and British troops occupied it following the landings of Nov. 8, 1942, it became the headquarters of the provisional French government of General Charles de Gaulle until the summer of 1944. For many months during that period it was the headquarters of the Allied Expeditionary Force.

Algeria became a Roman colony after the fall of Carthage in 146 B.C. and was overrun by the Arabs in the 7th, 11th and 12th centuries. In the 13th century it became one of the three kingdoms founded on the ruins of the old Almohade Empire. Following a brief Spanish occupation, it went under Turkish suzerainty in 1518. For 300 years thereafter Algiers was the headquarters of the notorious Barbary pirates who preyed on Mediterranean shipping. The French ended Turkish rule by taking Algiers in 1830, but it was not until 1847 that they were able to suppress a holy war instigated in 1839 by Abd-el-Kader.

French policy for a time vacillated between complete assimilation of Algeria as part of France, and a decentralized administration under a governor general. In 1896

the idea of assimilation was abandoned for a number of years. After France fell in 1940, Algerian government officials were loyal to Vichy, but their control was ended by the Allied invasion of the African coast in 1942.

GOVERNMENT. In effect, Algeria is part of France. Its three departments are represented in the National Assembly by 15 deputies, and it is one of the ten military districts of France, with both French and natives subject to military service. The governor general is responsible to the Interior, rather than Colonial, Ministry in the French Cabinet. A statute enacted in Aug., 1947, gave Algeria an elected legislative assembly, but leadership of the government still remains with the governor general.

SOCIAL AND ECONOMIC CONDITIONS. Primary and secondary schools for Europeans are on French lines. Most natives do not go beyond the primary grades. The knowledge and use of French has spread widely among the natives, but the teaching of Arabic in all schools was made compulsory in 1946. There is a university at Algiers, with faculties of science, arts, law, medicine and pharmacy.

Approximately 86 per cent of the population is native, 12 per cent French and 2 per cent other European. The native population is Berber, with Arab admixture physically assimilated.

The area under cultivation is about 15,000,000 acres, more than 30 per cent of which is owned by European farmers, chiefly in the fertile coastlands. The principal crops are wheat, barley and oats. Algeria is a leading wine producer, with almost 7 per cent of the cultivated area devoted to vines. Production in 1950 was 377,700,000 U. S. gallons, about four-fifths of normal. Olive trees are widespread; the average annual yield of oil is about 2,500,000 gallons. Tobacco, corn, vegetables, flax, silk, figs and dates are also produced. Much of the area is more adapted to grazing than to agriculture. In 1949 there were 3,839,000 sheep, 2,596,000 goats, 747,000 cattle and 138,000 camels.

European industries include those dependent on crops, such as distilling and oil and flour milling, as well as the making of leather, tobacco and matches. There are also small native industries, particularly the traditional carpet weaving.

Exports in 1950 were valued at 112,232,500,000 fr.; imports, at 151,982,700,000 fr. Chief exports were wine (47%), flour (5%) and citrus fruits (4%). Chief imports were sugar (6%), petroleum and products and cotton textiles (each 5%). France took 73% of the exports and supplied 71% of the imports.

Algeria has 3,396 miles of railway. A central line runs from the Moroccan to the Tunisian frontier with branches north to all the ports and south into the Southern Territories. There is an excellent network of roads of more than 80,000 miles, and motor transport is well developed, including regular passenger and freight lines across the Sahara. Only French ships may normally trade between France and Algeria.

Revenue (ordinary and extraordinary) was estimated at 83,439,893,000 fr. in 1951–52; expenditure, at 83,414,461,000 fr.

Algeria is a leading producer of phosphates (1949: 644,800 metric tons). Iron ore of good quality is found near the Tunisian frontier and on the Oran coast (1949: 2,536,900 tons). Zinc, lead and salt are also important minerals; and small amounts of oil and coal are produced.

Forests, mostly scrub, cover about 7,500,000 acres; cork is the leading product. Fish products include anchovies, sardines, shellfish, spray and tuna.

TOPOGRAPHY AND CLIMATE. Algeria fronts on the Mediterranean for more than 700 miles. Northern Algeria extends inland for 185 to more than 200 miles. South of it are the big, economically unimportant Southern Territories. Low plains cover small areas near the coast, but 68 per cent of Algeria is a plateau between 2,625 and 5,250 feet above sea level. The region between the Sahara and the Mediterranean reaches a high point of 7,641 feet.

Most of the streams are periodic with the rains. The Chélif is the principal river, over 435 miles long. On the Saharan slopes, the oases or the hot sands absorb the streams as soon as they leave the mountain ridges.

Rainfall averages 20 to 40 inches on the coast, and decreases to virtually none in the Sahara. On the coast, temperatures average about 52° in winter, 77° in summer. Inland, the winter average is about 40° and summer about 81°, although the Sahara summer average is 95° to 105°.

CAMEROUN (FRENCH CAMEROONS)—
Status: U. N. trust territory.
Capital: Yaoundé (population 50,000).
High Commissioner: Jean-Louis Soucadaux.
Foreign trade (1950): exports, 8,190,700,000 fr. C.F.A.*; imports, 10,561,900,000 fr. C.F.A. Chief exports: cacao (48%), fresh bananas, coffee, palm kernels and oil.
Agricultural products: sweet potatoes, millet, cacao, bananas, palm kernels and oil.
Minerals: diamonds, gold, tin.
Forest product: timber.

* Colonies Françaises d'Afrique, equal to 2 metropolitan francs.

Cameroun is bounded principally by French Equatorial Africa, except for the Atlantic Ocean on the west, the British Cameroons on the northwest, and Río Muni on part of its southern boundary.

In 1884 the Cameroons became a German colony (Kamerun), and after the conclusion of World War I the region was divided as a League mandate between Britain and France, four-fifths of the area going to France. The new U. N. trusteeship area has political and financial autonomy under a French High Commissioner, responsible to the French government and to the administrative council of French Equatorial Africa. Cameroun joined the Free French movement in 1940. The chief port and commercial center is Douala; the administrative center, Yaoundé (pop. 50,000), is located on the central plateau.

The climate is tropical and unhealthful for Europeans; not even in the cool months does the temperature generally fall below 70°. Rainfall is heavy on the coast and is fairly evenly distributed through the year.

FRENCH EQUATORIAL AFRICA—Status: Colony.
Governor General: Bertrand Cornut-Gentile.
Capital: Brazzaville (population 83,579).
Foreign trade (1950): exports, 7,277,500,000 fr. C.F.A.; imports, 13,393,600,000 fr. C.F.A. Chief exports: cotton (38%), timber, gold, diamonds, coffee, palm kernels.
Agricultural products: cotton (1950 exports: 23,959 metric tons), wool, palm kernels and oil, coffee.
Minerals: gold, diamonds, and lead.
Forest products: timber, rubber, copal gum, wax.

The colony lies in west central Africa, bordered on the west by the Atlantic, Cameroun, Nigeria and French West Africa; on the north by Libya; on the east by Anglo-Egyptian Sudan; and on the southeast and south by Belgian Congo. The coast, an early slaving center, was first settled by the French in 1839; French hegemony was subsequently extended by exploration and conquest of the native tribes. The territory declared for Free France following the armistice of June, 1940, and Brazzaville became capital of De Gaulle's Free French movement.

The governor general, responsible to the Minister for France Overseas in the French Cabinet, administers the area as an administrative unit with the aid of an administrative council; each of the four territorial regions (Gabon [Gabun], Middle Congo, Ubangi-Shari, Chad) has a governor responsible to him. There were, in 1948, 13,320 Europeans; most of the Africans are Negroes. There are Arab and Fulani settlements in the Chad region, and several Moslem sultanates. Natural resources, both forest and mineral, are vast but relatively unexploited. The country's economic life depends primarily on the forest products. The colony is capable of exporting large quantities of hard okoumé wood, either in logs or in veneer form.

The climate is tropical—hot and humid—and the average temperature is about 80° (78° at Brazzaville), varying only slightly throughout the year. Rainfall averages about 60 inches annually, with no marked wet or dry seasons.

FRENCH MOROCCO: see MOROCCO

FRENCH SOMALILAND—Status: Colony.
Capital: Djibouti (population 22,000).
Governor: Numa Sadoul.
Foreign trade (1950): exports, 1,383,700,000 fr. C.F.A.; imports, 2,720,800,000 fr. C.F.A. Chief exports: coffee, hides, salt.
Mineral: salt.

French Somaliland, at the southern entrance to the Red Sea, was acquired by France between 1883 and 1887 by treaties with the Somali sultans, although posts on the coast had been acquired in 1856. This small, largely arid and sparsely populated region is important chiefly because of the port of Djibouti, the main artery of Ethiopia's trade via the Djibouti-Addis Ababa railway. The colony is administered by a governor, responsible to the French government and assisted by an administrative council. It adhered to the Free French movement in December, 1942. In 1948 there were 2,500 Europeans, including 1,750 French.

French West Africa (Colony)
(L'Afrique Occidentale Française)

Governor General: Paul Béchard.
Principal cities (est. 1948): Dakar, 185,000 (capital, chief port); St. Louis, 62,900.
Monetary unit: Franc C.F.A. (Colonies Françaises d'Afrique, equal to 2 metropolitan francs).
Languages: French, native tongues.
Religions: Mohammedan, Pagan.

HISTORY AND GOVERNMENT. The St. Louis Colony, founded in 1626 at the mouth of the Sénégal River, was probably the first permanent white settlement in French West Africa in which the French established themselves, largely for the purpose of pursuing the slave trade. Little progress inland was made until after 1854, when a scheme was conceived to link the upper Sénégal with the upper Niger. After 1876 the coast settlements were extended steadily into the interior through a series of missionary and economic campaigns. In 1895 the colony of French West Africa was formed under one governor general by the unification of its various components.

The governor general of the colony is appointed by the French government and is assisted by a legislative council and an elected assembly. Governors responsible to him administer the eight constituent colonies—Sénégal, French Guinea, the Ivory Coast, Dahomey, Haute Volta (re-established in 1947), French Sudan, Mauritania and Niger. Each of these has considerable

autonomy, with the central colonial government supervising services common to all. The area is represented in the French National Assembly, the Council of the Republic, and the Assembly of the French Union.

SOCIAL AND ECONOMIC CONDITIONS. Attendance at elementary schools in 1948 was approximately 96,500. There were 80 higher primary schools with 7,200 students, and 18 secondary schools with 1,200 students. Private schools enrolled approximately 30,000.

No racial unity exists in French West Africa, and there is great variation of physique, manner, custom and language. The population is native except for approximately 54,560 Europeans (1948). Non-Negroid tribes include the Saharans, Moors, Tuaregs and Fulbé. About half the population normally is Mohammedan, but a number of tribes have remained spirit worshippers.

Agriculture has expanded rapidly in recent years. Millet, rice and maize are the principal food crops, and vegetable oils are a leading commercial product. Peanuts, the chief export crop (1949: 729,000 metric tons) are cultivated in Sénégal, and palm kernels and oil are produced in Dahomey and the Ivory Coast. Other products are coffee, cotton, cacao and bananas. Stock raising is important in French Sudan and Mauritania, relatively dry districts in the northern part of the colony. Manufacturing is undeveloped except for small native industries. Expansion is hindered by limited power facilities.

Imports in 1950 totaled 42,170,200,000 fr. C.F.A., including cotton textiles, machinery, vehicles and metal products. Sénégal and the Ivory Coast account for over half the exports, which totaled 38,322,400,000 fr. C.F.A. in 1950 and included coffee (18%), peanuts, peanut oil and cacao. France took 57% of the exports and supplied 67% of the imports.

The middle Niger and lower Sénégal Rivers are navigable, but French West Africa's railways (1949: 2,435 mi.) are more important as interior communications. Dakar, with the best harbor on the west African coast, is the principal port and also an important stop on international air routes between South America and Europe. There are several other good ports.

The estimated budget for 1951 balanced at 27,884,000,000 fr., over a third of which was the total local budget of the eight component colonies.

Gold, found in alluvial deposits in Sénégal and in veins in the Ivory Coast, and diamonds are the only important minerals. (Production of gold, however, has dropped sharply in recent years). Timber and precious woods are important, especially in the Ivory Coast. Forest products include timber, mahogany logs, gum arabic, shea butter (a solid, white fat obtained from the seeds of the shea tree) and nuts, kapok and beeswax.

TOPOGRAPHY AND CLIMATE. The colony, comprising a sixth of Africa, is half as big as Europe; it is generally a plateau broken by two mountain ranges. The Futa Jallon, from 2,300 to 4,900 feet in elevation, parallels the coast for about 430 miles, and Mount Nimba, on the Liberian border, rises 5,250 feet. There are also mountainous regions in the Sahara districts to the north. The Niger, 2,600 miles long, is the principal river.

The central and northern parts of the colony have two seasons, rainy and dry. In the southernmost regions there are two rainy seasons, separated by a short dry season. Average annual rainfall at St. Louis is 16.7 inches; at Dakar, 20.2 inches. Temperatures on the west coast average about 70° in winter and 82° in summer, with daily variation of about 20°.

MADAGASCAR AND DEPENDENCIES—
Status: Colony.
Capital: Tananarive (Antananarivo) (est. pop. 1948: 171,052).
Governor General: Robert Bargues.
Foreign trade (1950): exports, 12,431,-600,000 fr. C.F.A. (77% to France); imports, 15,073,200,000 fr. C.F.A. (75% from France). Chief exports: coffee (52%), skins (6%), vanilla (5%).
Agricultural products (1949): rice, 750,-400 metric tons; sugar cane, 298,200 tons; coffee, 29,300 tons; vanilla; manioc, bananas, maize, coconuts.
Minerals: graphite (1950 exports: 12,086 metric tons), mica, phosphates, gold.
Forest products: gum, medicinal plants, rubber, tannins, dyewoods.

Madagascar, lying off the southeast coast of Africa, is the fourth largest island in the world, with a length of 995 miles and an average width of 250 miles. It remained independent under native rulers until 1885, when it came under French protection. French troops conquered the island in 1895 and it became a French colony the following year. The last native ruler, Queen Ranavalona III, was exiled.

British troops landed on the island May 5, 1942, during World War II, and an armistice with Vichy French forces was signed November 5, 1942. The island is administered by a governor general responsible to the Minister for France Overseas in Paris, assisted by a General Assembly. Native nationalist outbreaks occurred in 1947, and French troops maintained order with difficulty.

The chief occupations are cattle raising (1949: 5,646,000 cattle) and agriculture; there are several food-processing and textile plants. The chief port is Tamatave on the east coast; the capital, Tananarive, is located on the central plateau. In 1948 there were 54,378 French and other non-

native residents, including Hindus, Arabs and other Asiatics. The natives, collectively known as Malagasy, are divided into several tribes. Outlying dependencies include the islands of Europa, Juan da Nova, Bassas da India and Glorieuses.

The Comoro Islands (800 sq. mi.), formerly a dependency, became an autonomous territory in 1946.

The climate of Madagascar is generally tropical, with a warm and wet season from November to April and a cool, dry season the rest of the year. Temperatures vary between 55.5° and 95° (at Tamatave, 80° in February, 68° in July).

RÉUNION (Bourbon)—Status: Département of Metropolitan France.
Capital: St. Denis (population: 36,096).
Prefect: Roland Bechoff.
Foreign trade (1950): exports, 3,320,800,000 fr. C.F.A.; imports, 4,578,900,000 fr. C.F.A. Chief exports: sugar, essential oils (geranium oil, oil of vetiver, oil of ilang-ilang), rum.
Agricultural products: sugar, vanilla, coffee, maize.

Discovered by Portuguese navigators in the 16th century, the island, then uninhabited, was taken as a French possession in 1638. It is located about 450 miles east of Madagascar, in the Indian Ocean.

There is no indigenous population. About three-quarters of the inhabitants are of European origin; the remainder are Creoles, mulattoes, Negroes, Indians and other Asiatics. Tropical cyclones of hurricane variety are frequent during the change of seasons. Occasionally a *raz de marée* (tidal wave) does great damage. Sugar-cane cultivation and the production of rum are the principal occupations.

TOGO—Status: U. N. trust territory.
Capital: Lomé (population 30,063).
Commissioner: Jean Cédile.
Foreign trade (1950): exports, 1,528,100,000 fr. C.F.A.; imports, 1,624,000,000 fr. C.F.A. Chief exports: cacao, palm kernels, coffee, copra.
Agricultural products: cacao, palm kernels and oil, cotton, copra, coffee.
Mineral: iron ore.
Forest products: dyewoods, oil palms.

Togo, a part of the former Slave Coast, lies between the British Gold Coast colony and French West Africa. Established as a German colony in 1884, the area was divided as a League mandate by France and Britain at the end of World War I, with France obtaining two-thirds of the total area. It was placed under U. N. trusteeship in Dec., 1946.

Togo is administered by a commissioner responsible to the French government, assisted by an economic and financial council composed of officials, merchants and nine elected native delegates. Agriculture and grazing are the chief industries. In 1948, there were 1,082 Europeans. The coastline, only 32 miles long, is low, sandy and without harbors.

The coastland climate is hot, humid and unhealthful, with wet seasons lasting from March to June and from September to November.

Tunisia (Protectorate)

Ruler (Bey): Sidi Mohammed al-Amin.
French Resident General: Louis Perillier.
Prime Minister: Mustapha Saak.
Principal cities (census 1946): Tunis, 364,593 (capital); Sfax, 54,637 (phosphate port); Bizerte, 39,327 (seaport and naval base); Sousse, 36,566 (seaport).
Monetary unit: French franc.
Languages: Arabic, French, Italian.
Religion: Predominantly Mohammedan.

HISTORY. Tunisia was settled by the Phoenicians and Carthaginians in ancient times. Except for an interval of Vandal conquest in A.D. 439–533, it was part of the Roman Empire until the Arab conquest of 648–69. Then it was ruled by various Arab and Berber dynasties until the Turks took it in 1570–74. The founder of the present dynasty, Hussein ben'Ali, was proclaimed sovereign by the occupation troops in 1705 and later succeeded in making the office hereditary, although subject to nominal Turkish sovereignty.

Throughout much of its history, Tunisia was essentially a pirate state, preying on Mediterranean shipping. In modern times, Italy became predominant economically in the area, but after French troops occupied the area in 1881, the Bey signed a treaty acknowledging a French protectorate.

Following the Allied landings in North Africa in 1942, Tunisia became a battleground with the Axis forces pinched between the British 8th Army advancing from Libya and the U. S., British and French forces from Algeria. The Axis units surrendered in May, 1943, and Tunisia was turned over to the De Gaulle government. On May 15, 1943, the reigning Bey, Sidi Mohammed al-Mounsaf, was removed and replaced by his cousin, the present ruler.

Fanned by Arab nationalist agitation elsewhere, the Tunisian nationalist party, *Destour*, although banned by the French, has intensified its activity in recent years. Its aim is the complete independence of Tunisia and its adherence to the Arab League.

GOVERNMENT. Although the Bey is theoretically sovereign, a French resident general directs the government, assisted by a cabinet with some Tunisian members. An agreement looking toward wider self-rule was signed in Feb., 1951.

The Southern Territory is subject to military administration.

SOCIAL AND ECONOMIC CONDITIONS. In 1947, Tunisia's 589 public and 104 private schools had 154,303 pupils, about a

third of them French and Italian. The Great Mosque at Tunis is a Moslem University.

Tunisia's population (by the 1946 census, 87.4 per cent Arab) is concentrated in the cities and on the coast. There are about 100,000 nomads.

Agriculture is the chief industry. Over a quarter of the arable land is in wheat (1949: 547,000 metric tons). Other important crops are barley, oats, corn, sorghum, beans and peas. Average annual wine production is about 38,000,000 gallons (1950: 26,400,000). Average annual olive oil production is about 45,000 metric tons (1949: 77,000 tons). The Cape Bon region is largely devoted to citrus fruits, the southern oases to dates. In 1948 there were 1,588,000 sheep, 1,083,000 goats, 341,000 cattle and 177,000 camels. More than 50,000 sheep and 4,000 tons of wool a year are usually exported.

Leading industries include flour milling, oil refining, lead smelting and distilling. Native industries include the spinning and weaving of wool, and the making of pottery and leather goods.

Tunisia, Algeria and France are under a single customs union for a number of products. Exports in 1950 were valued at 37,529,100,000 fr., of which 43% went to France. They included olive oil (30%), phosphates (12%), barley (10%) and wheat (7%). Imports were valued at 51,210,100,000 fr., of which 78% came from France. The leading items were cotton textiles (8%), petroleum and products (6%), refined sugar (6%) and iron and metal products (4%).

There were 5,408 miles of roads and 1,351 miles of railway in 1949. Tunis, Bizerte, Sousse and Sfax are the principal ports.

The 1949 budget balanced at 16,343,000,000 fr. State monopolies, including tobacco, provide about 25 per cent of the revenue and indirect taxes about half.

Tunisia's extremely rich deposits of phosphates are mined principally in the Gafsa and Kef regions. Production in 1950 was 1,529,600 metric tons. The iron ore is of good quality (1950: 757,400 tons). Other minerals are lead (1950: 54,400 tons), zinc, mercury, manganese, copper, salt and poor-grade lignite.

Products derived from Tunisia's 2,500,000 acres of forests include lumber, mine props and cork. Alfa is exported, mainly to England, for making of paper pulp. About 20,000 Tunisians work at fishing; the catch averages 8,000 tons of fish and 95 tons of sponges annually.

TOPOGRAPHY AND CLIMATE. Tunisia, at the northernmost bulge of Africa, thrusts out toward Sicily to mark the division between the eastern and western Mediterranean. It is mountainous in the north, covered by plains in the east, and projects southward to the Sahara area. Its principal river, the Medjerda, in the north, is 228 miles long. The climate is Mediterranean with mean temperature extremes at Tunis of 52.7° and 79.2°. Annual rainfall ranges from 24 inches in the north to less than five inches in the south.

WESTERN HEMISPHERE

FRENCH GUIANA (including ININI)—Status: Département of Metropolitan France.

Capital: Cayenne (population 10,961).

Prefect: Robert Vignon.

Foreign trade (1949): exports, 219,300,000 fr.; imports, 1,031,300,000 fr. Chief export: gold (71%).

Agricultural products: bananas, cacao, corn, manioc, rice, sugar cane.

Mineral: gold (1949: 15,017 troy oz.).

French Guiana, lying north of Brazil and east of Surinam (Dutch Guiana) on the northeast coast of South America, was first settled in 1626. Penal settlements, embracing the area around the mouth of the Maroni River and the Iles du Salut (including Devil's Island), were founded in 1852; they have now been replaced by refugee camps.

During World War II French Guiana at first adhered to the Vichy government, but the Free French took over in March, 1943. The large and scantily populated territory of Inini in the hinterland is administered separately. Economic development is extremely backward; transportation is almost entirely by water, conditions are unsanitary and large quantities of foodstuffs must be imported. Gold is the chief export.

January temperatures average 79°, September and October temperatures 82°. Rainfall is heavy.

GUADALOUPE—Status: Département of Metropolitan France.

Capital: Basse-Terre (population 13,638).

Prefect: Gilbert Philipson.

Foreign trade (1950): exports, 6,008,100,000 fr.; imports, 7,442,200,000 fr. Chief exports: sugar (55%), bananas.

Agricultural products (1949): sugar (48,000 metric tons), bananas (78,000 tons), coffee, cacao, manioc, vanilla, tobacco.

Guadeloupe, lying in the West Indies about 300 miles southeast of Puerto Rico, was discovered by Columbus in 1493. French colonization began in 1635. It consists of two large islands, separated by a narrow arm of the sea, and several outlying smaller islands. Most of the population is Negro and mulatto. The largest city and chief port is Pointe-à-Pitre (population 44,551). About half the cultivated area is devoted to sugar cane. The manufacturing of rum and spirits is the principal industry. Mean annual temperature is 78°.

MARTINIQUE—Status: Département of Metropolitan France.
Capital: Fort-de-France (population 64,525).
Prefect: Christian Laigret.
Foreign trade (1950): exports, 5,302,000,000 fr.; imports, 7,399,600,000 fr. Chief exports: sugar (39%), rum, bananas.
Agricultural products: sugar (1950: 37,000 metric tons), bananas, pineapples, cacao, coffee.
Manufactures: rum, sugar.

Martinique, lying in the Lesser Antilles about 300 miles northeast of Venezuela, was probably discovered by Columbus in 1502 and was taken for France in 1635. Following the Franco-German armistice of 1940 it had a semi-autonomous status under the High Commissioner, Admiral Georges Robert, until 1943, when he relinquished his authority to the Free French. The colony, administered by a governor assisted by an elected council, is represented in the French legislature. The population is mainly Negro and mulatto. Most of the arable land is devoted to sugar cultivation. Fort-de-France, the capital and chief commercial center, has an excellent harbor. Mean annual temperature of the coast region is 80° (77° in January, 83° in June).

ST. PIERRE AND MIQUELON—Status: Colony.
Capital: St. Pierre.
Administrator: Jean Moisset.
Foreign trade (1950): exports, 142,300,000 fr.; imports, 347,600,000 fr. Chief export: cod and other fish products.

The sole remnant of the French colonial empire in North America, these islands were first occupied by the French in 1660. Their only importance arises from proximity to the Grand Banks (10 mi. south of Newfoundland) making them the center of the French Atlantic cod fisheries.

ASIA

FRENCH INDIA—Status: Colony.
Capital: Pondichéry (population 53,101).
Commissioner: André Ménard.
Chief exports: peanuts, cotton textiles.
Agricultural products: peanuts, manioc, rice, onions.

French India is a collective name for the scattered French possessions in India—on the Coromandel coast are Pondichéry, Karikal and Yanaon; on the Malabar coast, Mahé. The chief possession is Pondichéry, founded by the French in 1674. The governor, responsible to the Minister for France Overseas in Paris, is assisted by a representative assembly. More than 90 per cent of the population of French India is Hindu.

Chandernagor, in Bengal, formerly part of French India, was transferred to India on May 2, 1950, in accordance with a popular referendum. The future status of the remainder of the colony is also to be determined by referendum.

Indo-China

High Commissioner: Gen. Jean de Lattre de Tassigny.
Ruler, Viêt-Nam: Bao Dai.
King, Cambodia: Norodom Sihanouk.
King, Laos: Sisavang Vong.
Principal cities (est. 1949): Saïgon, (including port of Cholon), 256,000 (capital, Viêt-Nam); Hanoi, 160,000 (commercial center, Viêt-Nam); Pnom-Penh, 128,950 (capital, Cambodia); Haiphong, 92,000 (seaport, Viêt-Nam).
Monetary unit: Piaster.
Languages: Annamese, Cambodian, French.
Religions: Buddhism, Christianity (4%).

HISTORY, GOVERNMENT. Indo-China at the southeast corner of Asia, first met the West in the 16th century, when Portuguese traders and missionaries arrived. French influence dates from 1787, and in the 19th century France received preferential treatment for helping the emperor of Annam recover his throne. During the last half of the century, France gradually extended influence over the whole.

After France fell in 1940, Vichy authorized the entry of Japanese troops, and the country became one of the springboards for the Japanese campaign against Singapore. When, in March, 1945, the Japanese seized control of the whole country, Annam and Cambodia declared their independence. After the Japanese surrender, British and Chinese troops occupied Indo-China in the face of a growing nationalist movement, and restored order for the French authorities, who assumed control officially on March 4, 1946.

Until the beginning of World War II, Indo-China was an administrative federation of one colony—Cochin-China; four protectorates—Annam, Tongking, Cambodia and Laos; and a special territory—Kwangchowan (returned to China in 1945). These had various degrees of native rule, but the real administrator of each unit was the French chief resident.

Early in 1945, France announced its intention of organizing the area into five states constituting a federal union, with the components enjoying limited self-government under a French governor general and the Federation a component part of the French Union. France was not able, however, to carry out this plan in its entirety, largely because of difficulties which it encountered in Viêt-Nam.

The Republic of Viêt-Nam—comprising Tongking and the northern part of Annam—had been recognized on March 6, 1946, as a free state within the Indo-Chinese Federation and the French Union. Viêt-Nam leaders, however, headed by Dr. Ho Chi Minh, a Communist, demanded a greater measure of autonomy and cession of the rich rice area of Cochin-China as well as southern Annam. The French stead-

fastly refused to accede to these demands, and fighting resumed on Dec. 19, 1946.

In the spring and summer of 1947, reinforced French troops won control over most major points in Viêt-Nam. On June 5, 1948, a new government uniting pro-French groups in Annam, Tongking and Cochin-China was set up, and a treaty signed that day recognized the unity of the new state within the French Union.

Meanwhile, guerrillas still held back areas. Communist forces attacked with renewed vigor in 1950, and French forces had to fall back in many places.

An agreement to fulfill the 1948 treaty, signed at Paris March 8, 1949, and effective June 14, gave Viêt-Nam full internal sovereignty and limited diplomatic representation abroad. In April, 1949, the newly elected assembly of Cochin-China voted to exercise its option of joining the new state. On June 14, Bao Dai, former emperor of Annam, proclaimed himself head of the new state with French approval.

Similar agreements in respect to Laos and Cambodia were concluded on July 19 and Nov. 8, 1949, respectively.

Indo-China is thus made up of the states of Viêt-Nam, Laos, and Cambodia, each an independent and self-governing state within the French Union. The Union is represented in Indo-China by a high commissioner who coordinates services common to the three states, such as the fiscal, immigration and customs services. The high commissioner is represented in each state by a commissioner.

SOCIAL AND ECONOMIC CONDITIONS. Viêt-Nam, consisting primarily of the densely populated eastern and southeastern coastal areas, contains about 85 per cent of the population of Indo-China. The majority of its population is Annamese and speaks the Annamese language. The kingdom of Cambodia, in the southwest, contains part of the Mékong river delta and is populated largely by Cambodians, who speak their own language. Laos, in the west and northwest, is sparsely populated by the Laotians and 3 ethnical minorities who belong to the Thai, Indonesian and Chinese races.

Rice, grown on five-sixths of the cultivated land, employs and feeds most of the population, and is normally the leading export and chief source of wealth. Production, centered in Cochin-China, ordinarily averages up to 4,500,000 tons annually (1949: 4,600,000 metric tons). Other crops include maize, sugar, cotton, tobacco, tea, coffee, peanuts, sweet potatoes and beans.

Indo-China is largely an exporter of raw materials. Its factories are small and process goods for local consumption or agricultural and forest products for export. Most important are the rice and saw mills. There are also cotton and silk textile factories, sugar refineries, match, cement and paper factories.

Viêt-Nam, Cambodia and Laos make up a single customs union. Exports in 1950 were 25,887,600,000 fr.; imports, 73,761,300,000 fr. The chief exports were rubber (50%), rice (20%) and dried vegetables (4%). Principal customers were France (40%), the U. S. (20%) and the French Union (10%). France (76%) was the leading supplier.

Indo-China has several thousand miles of rivers and canals, including the Mékong River, which is navigable for two-thirds of its course. There are about 2,000 miles of railways. An excellent highway system includes 5,563 miles of improved road, and 11,477 miles of local road. Unreplaced bridges, wartime attrition and guerrilla activity still hamper traffic.

Mining is most developed in Tongking. Output of coal in 1950 was 501,800 metric tons. Iron ore, tin, zinc, tungsten, gold, phosphates, manganese, bauxite and lead are also mined.

Forests cover 76,570,000 acres of Indo-China. The high mountain ranges of the north supply valuable tropical hardwood, bamboo, lacs and vegetable oil. Laos has rich teak forests. Rubber production in 1950 was 47,940 metric tons, about three-fourths of prewar output. The industry centers in Cochin-China. Fishing provides a major staple food to go with rice.

TOPOGRAPHY AND CLIMATE. Extending about a thousand miles from north to south, Indo-China has two great delta regions—the Mékong in the south and the Song Koi in the north. These are separated by the Annam Mountains, and to the west of them are the mountainous continental regions of Laos. The climate is monsoonal, with nearly all of the very heavy rainfall between May and October; April and May are the hottest months (86° to 93.2°). Laos, in the interior, is cooler and drier than most of Indo-China.

OCEANIA

FRENCH PACIFIC SETTLEMENTS—Status: Colony.

Governor: Armand Anziani.

Capital: Papeete, on Tahiti (population 1946: 12,428).

Foreign trade (1950): exports, 478,600,000 fr. C.F.P.*; imports, 535,600,000 fr. C.F.P. Chief exports: copra, phosphate, vanilla.

Agricultural products: coconuts, sugar, vanilla, tobacco.

Mineral; phosphate (exports 1950: 254,827 metric tons).

* Colonies Françaises du Pacifique, equal to 5½ metropolitan francs.

The term French Pacific Settlements is applied to the scattered French possessions in the eastern Pacific—Mangareva (Gambier), Makatea, Marquesas Islands, Rapa, Rurutu, Rimatara, Society Islands, Tuamotu Archipelago, Tubuai and Raivavae—

which were organized into a single colony in 1903. The appointed governor is assisted by an administrative council. The principal and most populous island—Tahiti, in the Society group (pop. 1946: 24,820)—was claimed as French in 1768. Plebiscites conducted in September, 1940, gave support to the Free French movement of Gen. de Gaulle. The natives are mostly Polynesians. The climate of Tahiti is hot and humid, but not unhealthful. There is no clear division of seasons.

NEW CALEDONIA AND DEPENDENCIES
Status: Colony.
Capital: Nouméa (population 16,000).
Governor: Pierre Cournarie (also French Commissioner General in the Pacific).
Foreign trade (1950): exports, 522,000,000 fr. C.F.P.; imports, 752,500,000 fr. C.F.P. Chief exports: nickel, chrome ore, coffee, copra, shells.
Agricultural products: coffee, copra, corn, cotton, manioc, rice, tobacco.
Minerals (1949): nickel (4,000 metric tons, matte); chromite (88,800 tons).
Sea product: mother-of-pearl.

New Caledonia (6,533 sq. mi.), lying about 1,070 miles northeast of Sydney, Australia, was discovered by Captain James Cook in 1774 and annexed by France in 1853. The government, in the hands of an appointed governor and an elective council, also administers the Isle of Pines, the Wallis Archipelago, the Loyalty Islands, the Chesterfield Islands, Walpole, the Huon Islands, Futuna and Alofi, with a total area of 1,121 square miles. The colony—taken over in the summer of 1940 by the Free French after a bloodless revolution—is one of the richest of the Pacific islands in mineral resources, particularly nickel and chrome ore. The natives are Melanesians; about one-third of the population is white and one-fifth Indo-Chinese and Javanese. A French penal colony was established in the 19th century. Average temperature on New Caledonia varies between 65° and 72°.

NEW HEBRIDES—Status: Anglo-French condominium.
Capital: Vila (population 1,200).
Foreign trade (1949): exports, £1,174,796; imports, £804,806. Chief exports: copra, cacao.
Agricultural products: coconuts, cacao, coffee.
Sea products: trochus and burghaus shell.

The New Hebrides, under joint Anglo-French administration since 1914, lie northeast of New Caledonia. The islands, about 40 in number, joined the Free French movement after a plebiscite in July, 1940. Most of the natives are Melanesians of mixed blood; there were 245 British and 667 French in 1947. The largest island is Espiritu Santo (875 sq. mi.). The French and British high commissioners in the Pacific are represented by resident commissioners.

Germany

HISTORY. In Caesar's time, the territory that is now Germany was inhabited by barbarous tribes that came originally perhaps from Central Asia. One of these Germanic tribes, the Franks, attained supremacy in western Europe under Charlemagne, who was crowned Holy Roman Emperor in A.D. 800. By the Treaty of Verdun (843), Charlemagne's lands east of the Rhine were ceded to the German prince Louis. Additional territory acquired by the Treaty of Mersen (870) gave Germany approximately the area she maintained throughout the Middle Ages. For several centuries after Otto the Great was crowned king in 936, the German rulers were also usually heads of the Holy Roman Empire.

Relations between State and Church were changed by the Reformation, which began with Martin Luther's 95 theses, and came to a head in 1547, when Charles V scattered the forces of the Protestant League at Mühlberg. Freedom of worship was obtained by the Peace of Augsburg (1555), but a Counter Reformation took place later, and a dispute over the succession to the Bohemian throne brought on the Thirty Years' War (1618–48) which devastated Germany and left the empire divided into hundreds of small principalities virtually independent of the emperor. Meanwhile, Prussia was developing into a province of considerable strength. Frederick the Great (1740–86) reorganized the Prussian army and defeated Maria Theresa of Austria in a struggle over Silesia. The conflict with revolutionary France hastened the disintegration of the empire, and in 1806 Francis II of Austria laid down the Imperial German crown. After the defeat of Napoleon at Waterloo (1815), the struggle between Austria and Prussia for supremacy in Germany continued, reaching its climax in the defeat of Austria in the Seven Weeks' War (1866) and the formation of the Prussian-dominated North German Confederation (1867).

At the close of the victorious war with France (1870–71), William I, King of Prussia, was crowned Emperor of Germany (Jan. 18, 1871). Under the guidance of the Imperial Chancellor, Prince Bismarck, Germany took a new place in world affairs, at the same time expanding her foreign trade and home industry rapidly. The Triple Alliance was formed with Austria and Italy in 1882. However, upon the accession of William II (1888–1918), Bismarck was dismissed and Russia was alienated. International rivalry was intensified in the early years of the 20th century, culminating in World War I, in which Germany, supporting Austria-Hungary's demands on Serbia, suffered final defeat. By the terms of the Treaty of Versailles (1919) Germany lost about 27,000 square miles of territory,

including all her colonies, plus Alsace-Lorraine, northern Schleswig, Eupen-Malmédy, Upper Silesia, and considerable areas in the east. William II had abdicated (Nov. 9, 1918), and a federal republic was organized under the constitution adopted at Weimar in 1919. The constitution was attacked by both the Right and Left; several Communist uprisings took place in the early 1920's, and in 1923 Adolf Hitler's abortive putsch was defeated. Germany's inability to fulfill the heavy reparations demands stipulated by the Treaty of Versailles led to French occupation of the Ruhr (1923–25). National bankruptcy was avoided by adoption of the Dawes Plan (1924) and later, the Young Plan.

The chancellorship of Brüning, leader of the Catholic Center party (1930–32), saw increasing economic and financial distress and the practical cessation of reparations payments. Hitler's rising National Socialist party won a plurality in both the July and November Reichstag elections in 1932, but not until the failure of Franz von Papen and Kurt von Schleicher to form governments did President Hindenburg name Hitler chancellor (Jan. 30, 1933). With the death of Hindenburg in 1934, Hitler became complete master of Germany, which he rapidly converted into a totalitarian state under the aegis of the Nazi party. All other political parties were banned, and the Jews were subjected to severe persecution. Through his foreign policy, Hitler repudiated the Treaty of Versailles and began full-scale rearmament. In 1935 he withdrew from the League of Nations and in 1936 he reoccupied the Rhineland and signed the anti-Comintern pact with Japan, at the same time strengthening relations with Italy. Austria was annexed in March, 1938. By the Munich agreement (Sept., 1938) he gained the Czech Sudetenland, and in violation of this agreement he completed the dismemberment of Czechoslovakia in March, 1939. But his invasion of Poland on Sept. 1, 1939, precipitated British and French declarations of war.

On May 8, 1945, Germany surrendered unconditionally to Allied and Soviet military commanders, and on June 5 the four-nation Allied Control Council became the *de facto* government of Germany.

At the Berlin (or Potsdam) Conference (July 17–Aug. 2, 1945) President Truman, Stalin and Prime Minister Attlee set forth the principles by which the Allied Control Council was to be guided. They were: Germany's complete disarmament and demilitarization; destruction of its war potential; rigid control of industry; decentralization of the political and economic structure. Pending final determination of territorial questions at a peace conference, the three victors agreed in principle to the ultimate transfer of the city of Königsberg (now Kaliningrad) and its adjacent area to the Soviet Union and to the administration by Poland of former German territories lying generally east of the Oder-Neisse line.

For purposes of control, Germany was divided in 1945 into four national occupation zones, each headed by a military governor, assisted by appropriate supervisory and operating staffs.

Efforts to unify Germany were totally unsuccessful, and the western powers were unable to agree with the U.S.S.R. on any fundamental issue. Work of the Allied Control Council was hamstrung by repeated Soviet vetoes; and finally, on March 20, 1948, the U.S.S.R. walked out of the Council. Meanwhile, the U. S. and Britain had taken steps to merge their zones economically (Bizone); and on May 31, 1948, the U. S., Britain, France and the Benelux countries agreed to set up a German state comprising the three western zones. At the same time the western powers introduced a new German currency.

The Soviet Union replied to these measures by clamping a blockade on all ground communications between the western zones and Berlin. The western Allies, refusing to be driven out of the capital, immediately organized a gigantic airlift to fly supplies into the beleaguered city. The results were spectacular, and each month saw new flight and cargo records established. Before the Russians were finally forced to lift the blockade on May 12, 1949, 60,000 men were engaged in the airlift, at a cost of more than $150,000,000 for the U. S. and $50,000,000 for Britain.

In return for lifting the blockade, the U.S.S.R. asked only that the Big Four foreign ministers meet again to discuss German unification. The conference, meeting in Paris from May 23 to June 20, 1949, ended as usual in a deadlock.

German Federal Republic

Area: 94,634 square miles.
Population (census 1950*): 47,585,872 (predominantly German).
Density per square mile: 502.8.
Allied High Commission: John J. McCloy (U.S.A.); Sir Ivone Kirkpatrick (United Kingdom); André François-Poncet (France).
President: Theodor Heuss.
Chancellor: Konrad Adenauer.
Principal cities (census 1950*): Hamburg, 1,605,000 (chief port); Munich, 831,000 (Bavarian capital); Essen, 695,000 (steel works); Cologne, 590,000 (transportation center); Frankfurt am Main, 524,000 (manufacturing).
Monetary unit: Deutschemark (Dm.).
Language: German.

* Preliminary figures.

The German Federal Republic came into

formal existence on Sept. 21, 1949, when the Allied High Commission turned over to it the administration of the U. S., British and French zones of occupation of Germany. Its creation marked the culmination of the Anglo-U. S.-French policy of progressively handing back to Germany its sovereignty and of modifying and reducing the restrictions and limitations on its industry. Preliminary steps reflecting this policy were: (1) the Anglo-U. S. agreement which took effect Jan. 1, 1947, providing that the U. S. and British zones should be treated as a single area for all economic purposes; and (2) the promulgation on Feb. 9, 1948, of a new bizonal charter providing for an economic council of 104 members to control all economic affairs in the U. S. and British zones.

On April 8, 1949, the Allied governments approved the terms of the Occupation Statute defining the basis for the merger of the U. S., British and French zones. On May 8, the German constituent assembly at Bonn approved a Basic Law or constitution for western Germany; it came into force on May 23, after approval by the *Landtage* of the 11 constituent *Länder*. Parliamentary elections were held on Aug. 14; and on Sept. 12, Free Democratic leader Theodor Heuss was elected president of western Germany. On Sept. 15, the *Bundestag* confirmed his appointment of Konrad Adenauer, leader of the Christian Democratic party, as chancellor. Bonn was selected as the federal capital on Nov. 3.

GOVERNMENT. Supreme authority is vested in the governments of the U. S., United Kingdom and France and is exercised through the Allied High Commission, headed by three high commissioners, one being designated by each of the governments. The powers of the Commission are defined in the Occupation Statute which took effect Sept. 21, 1949. Subject to the provisions of the statute, the republic and the participating *Länder* have full legislative, executive and judicial powers in accordance with the Basic Law and their respective constitutions. Any law of the republic is, however, subject to veto by the Commission within 21 days after receipt. The principal powers reserved to the Commission are those of foreign policy, disarmament and demilitarization, Ruhr control, reparations, decartelization, and security of Allied occupation forces.

The Occupation Statute was amended on March 6, 1951, on the basis of an agreement between the U. S., Britain and France, to provide for creating a German foreign affairs ministry and further progressive relaxation of Allied controls. Plans for a "peace contract" with the Allies giving West Germany almost complete self-government were announced in Sept., 1951.

The Basic Law or constitution of the republic provides for a federal form of government headed by a president elected every 5 years by a federal convention. The parliament consists of a *Bundestag* whose members are elected every 4 years by popular vote and a *Bundesrat* whose members are appointed by the *Länder* governments. Actual executive power is in the hands of the cabinet, answerable to the *Bundestag* and headed by a chancellor appointed by the president, subject to the right of the *Bundestag* to elect a chancellor of its own preference. Provision was made for the accession of *Länder* in the Soviet zone. Any amendment of the Basic Law requires the express approval of the Allied High Commission before becoming effective. Each constituent *Land* must have a republican form of government with an assembly elected by universal suffrage.

The party standing in the *Bundestag* is as follows: Christian Democrats 139, Socialists 131, Free Democrats 52, Communists 15, others 34.

On April 28, 1949, the international Ruhr authority was formally set up to allocate the production of the Ruhr industrial area under the terms of a statute framed by representatives of the U. S., United Kingdom, France, Belgium, the Netherlands and Luxemburg.

The area and population of the republic, according to zones, is as follows:

Zone	Area (sq. mi.)	Population (census 1946)
British	37,723	22,344,900
French	15,405	5,004,400
U. S.	41,506	17,174,000
Total	94,634	44,522,900

EDUCATION. Education is compulsory between the ages of 6 and 14 and is still in the process of reorganization. In May, 1948, there were 28,865 elementary schools, with 6,254,333 pupils; 620 higher elementary schools (bizone only), with 175,946 pupils; 1,429 secondary schools, with 600,235 students; and 16 universities, with 71,672 students.

AGRICULTURE. About 35 per cent (34,000 square miles) of western Germany's total area is arable. Agriculture is characterized by mixed farming, the climate and the soil permitting cultivation of a variety of crops and most types of livestock. Rye and potatoes are staple crops in the north; grains and sugar beets in the central regions. The northwestern and southern areas are noted for dairying, while the west is the chief fruit- and wine-producing region. The soil is generally poor, and high crop yields are dependent upon large-scale use of fertilizers.

Production data for western Germany (excluding the Saar) are as follows (thousands of metric tons):

	1948	1949	1950*
Wheat	1,953	2,471	2,614
Rye	2,727	3,310	3,021
Barley	855	1,213	1,473
Oats	1,904	2,600	2,545
Potatoes	23,547†	20,875	27,959
Sugar beets	4,055	4,240	6,135

* Preliminary figures. † Including Saar.

In Dec., 1949, western Germany (excluding the Saar) had 9,698,000 hogs, and 1,629,000 horses; (including the Saar) 10,896,000 cattle and 2,012,000 sheep.

Western Germany is not self-sustaining in food. Difficulties stem to a considerable extent from the fact that Poland now controls the area east of the Oder-Neisse, which contained 28 per cent of prewar Germany's arable land and produced about 25 per cent of its food. Moreover, the population has grown rapidly.

INDUSTRY. Western Germany's industry is well-developed and highly diversified. It accounted for about two-thirds of Germany's prewar industrial production and for a large part of iron and steel production. In 1949, western Germany had 47,558 industrial establishments employing 10 persons or more (excluding the building, gas and electricity industries), with total employment of 4,415,000.

PRODUCTION, WESTERN GERMANY

(monthly averages, in thousands of metric tons)

	1948	1949	1950
Pig iron and ferroalloys	389	595	789
Steel ingots and castings	463	763	1,010
Cement	465	705	906
Passenger cars	2.50*	8.67*	18.01*
Cotton yarn	9.92	19.06	23.53
Wool yarn	3.19	5.42	7.06
Rayon yarn	2.14†	3.75	4.05

* Thousands of units. † Anglo-U. S. bizone.

Steel production is limited by agreement among the occupying powers to 11,100,000 tons per year, unless additional production is found to aid western European defense. Production of war material is still prohibited; the ban on production of certain light metals, synthetic rubber, gasoline and oil and machine tools was lifted in April, 1951, subject to capacity limitations in some cases. Industrial production was 139% of the 1936 level in April 1951.

TRADE. Western Germany is dependent upon extraordinary foreign aid to pay for a considerable portion of the food and industrial raw materials which it must import. Recent foreign trade data for the area which now comprises the republic are as follows (in millions of U. S. dollars):

	1948	1949	1950*
Exports	706	1,129	8,362†
Imports	1,581	2,248	11,375†

* Including west Berlin. † Millions of Dm.

Leading exports in 1950 were metal goods, machinery, vehicles and instruments (36%), coal and coke (15%) and chemicals and products (8%). Leading customers were the Netherlands (13%), Belgium (8%) and France (7%); leading suppliers, the U. S. (19%), the Netherlands (13%) and Britain (12%).

COMMUNICATIONS. German railway trackage and rolling stock, as well as the canal system, were largely destroyed during World War II, and the lack of adequate transportation seriously hindered German economic recovery. In May, 1949, the western German rail network had a total length of about 20,175 miles, all publicly owned.

Civil air transport is handled by foreign air lines, Germany being prohibited from establishing its own lines. As of July, 1949, the west German merchant fleet consisted of about 1,100 small ships (none over 1,500 tons), with total gross registered tonnage of 270,000. The principal seaports are Hamburg and Bremen.

Inland waterway transportation is of great importance. Over half the traffic is carried on the Rhine River, which links the Ruhr area with Belgian and Dutch ports. Shipping on the Rhine is controlled by the Central Commission of the Rhine —an international body composed provisionally of U. S., British, French, Swiss, Dutch and Belgian representatives—which was reconvened in October, 1945.

FINANCE. The budget for 1950–51 balanced at Dm. 13,013,600,000. About 80 per cent of the expenditures was earmarked for occupation costs, expenditures attributable to World War II (e.g., pensions) and unemployment compensation.

NATURAL RESOURCES. Aside from rich deposits of coal and potash, western Germany's mineral wealth is not considerable. The Ruhr, Krefeld and Aachen districts (mostly located in the British zone) constitute one of the world's greatest coal mining regions, with prewar reserves estimated at 65,520,000,000 tons. Production in this area (about 78 per cent of total prewar production) is handicapped by the prevalence of thin seams, but distribution is favored by easily accessible natural waterways and efficient canals. Known petroleum resources are meager, and supplies of iron ore, copper, lead and zinc are insufficient for domestic needs. Mineral production (excluding the Saar) was as follows in 1950: coal, 110,750,000 metric tons; lignite, 75,840,000 tons; iron ore, 10,885,000 tons; crude potash (1949), 5,276,000 tons.

About 23 per cent of the total area of western Germany is covered by commercial forests, which yield timber as well as material for paper, wood fiber, cellulose and other products.

TOPOGRAPHY. The northern plain, the

central hill country and the southern mountain district constitute the main physical divisions of western Germany. The Bavarian plateau in the southwest averages 1,600 feet above sea level, but to the west, in the Black Forest, it reaches 9,721 feet in the Zugspitze, the highest point in Germany.

There are several important navigable rivers. In the south the Danube, rising in the Black Forest, flows east across Bavaria into Austria. The other important rivers flow north. The Rhine, which rises in Switzerland and flows across the Netherlands in two channels to the North Sea, is navigable by smaller ocean-going vessels as far as Cologne. The Rhine and the Elbe, which also empties into the North Sea, are navigable within Germany for ships of 400 tons. The Weser, flowing into the North Sea, and the Main and Mosel (Moselle), both tributaries of the Rhine, are also important.

CLIMATE. The climate of western Germany is intermediate between the oceanic climate of western Europe and the continental climate farther east. The average summer temperature is 60° to 62°. The sheltered mountain valleys of the south enjoy a more temperate climate, especially the valley of the Rhine above Mainz. Rainfall is heaviest in the south and west (over 30 inches).

German Democratic Republic

Area: 41,700 square miles.
Population (census 1946): 17,313,700 (predominantly German).
Density per square mile: 415.2.
Chairman, Soviet Control Commission: Marshal Vassili Chuikov.
President: Wilhelm Pieck.
Premier: Otto Grotewohl.
Principal cities (census 1946): Leipzig, 608,111 (trading, publishing center); Dresden, 463,032 (railway center, Elbe port); Chemnitz, 250,000 (textiles); Magdeburg, 236,000 (iron and steel products); Halle am der Saale, 223,000 (railway center).
Monetary unit: Ostmark.

The so-called German Democratic Republic comprises the Soviet zone of occupation of Germany. It was proclaimed on Oct. 7, 1949, with its seat at Berlin, on the basis of a constitution adopted May 30, 1949, by a people's congress chosen under a plebiscite arrangement in elections held in the Soviet zone and eastern Berlin on May 15 and 16, 1949. The congress elected a people's council (*Volksrat*) which was transformed on Oct. 7 into a provisional people's chamber (*Volkskammer*). A chamber of the states (*Länderkammer*) was nominated on Oct. 10, and on Oct. 11 both chambers elected Communist-leader Wilhelm Pieck as president of the republic and Otto Grotewohl as minister-president or premier. The constitution is soviet in nature and the government is under complete Communist domination. Soviet government supervision is exercised by the Soviet Control Commission.

The republic lies largely between the Elbe and Oder rivers, including most of Brandenburg, Mecklenburg and the industrial Saxon and Thuringian lands.

About 22 per cent of the population is engaged in agricultural pursuits and the area is almost self-sufficient in foodstuffs. Postwar yields have, however, suffered from droughts and shortages of fertilizer. Recent production data are as follows (in thousands of metric tons):

	1948	1949	1950
Wheat	999	926	815
Rye	1,941	2,025	2,130
Oats	809	1,087*	1,140*
Sugar beets	4,126	3,545	...
Potatoes	12,408	8,499	...

* Includes mixed grain.

In December, 1948, there were an estimated 3,202,000 cattle, 2,100,000 hogs and 780,000 sheep in the area.

Most of the industrial establishments, particularly in heavy industry, have been nationalized. The area accounted for 26 per cent of prewar Germany's industrial production, ranking first in textiles, paper and pulp and ceramics and glass (especially optical glass produced by the famous Jena works). Total production in 1948 was estimated at 55 to 60 per cent of the 1936 level. A Two-Year Plan inaugurated in 1949 had the object of raising the volume of production to 81 per cent of the 1936 level by the end of 1950. Unofficial production data for 1948 are as follows: pig iron, 173,000 metric tons; raw steel, 191,700 tons; caustic soda, 80,000 tons; rayon and staple fiber, 61,700 tons; yarn and thread, 80,000 tons.

Foreign trade is carried on through government-owned trading companies. Trade is confined largely to Europe. Important imports include coal, iron and steel and farm and forestry products; exports include lignite and crude potash.

Railways, highways and inland waterways were reported in 1951 to be inadequate to meet the demands of the area's economy. The rehabilitation and expansion of transport facilities was emphasized in connection with the Two-Year Plan.

The area is not rich in minerals. It has only minor deposits of coal (1948 production: 2,840,000 metric tons) and deposits of iron ore are scanty and of low quality (1947: 280,000 tons). It does have important deposits of lignite (1948: 113,000,000 tons) and crude potash (1948: 823,000 tons).

The 1950 budget estimated revenue at Dm. 17,630,000,000 and expenditure at Dm. 17,526,000,000.

Most of the area is part of a low plain. The climate is temperate for the most part.

Berlin

Area: 344 square miles.
Population (est. June 1, 1949): 3,729,300.

Berlin, the capital of prewar Germany, is surrounded by the German Democratic Republic. It is occupied by the forces of the U. S., the U. K., France and the U.S.S.R., each having its own sector of occupation. The three western sectors contain 55 per cent of the area and 63 per cent of the population.

The supreme authority in western Berlin is exercised by the Allied High Commission; its representatives constitute a tripartite Kommandatura which has responsibility for the exercise of the powers reserved to the occupation forces under the Berlin Charter, a document analogous to the west German Occupation Statute. Other powers of government are exercised by a city assembly elected by popular vote and a *magistrat* (city council) chosen by the assembly.

Supreme authority in the eastern sector of Berlin is exercised by the Soviet Control Commission. Powers not exercised by it or by the German Democratic Republic are vested in a "rump" city government, which proclaimed itself in power Nov. 30, 1948.

The Saar

Area: 898 square miles.
Population (est. 1949): 925,000.
Density per square mile: 1,030.1.
Premier: Johannes Hoffman.
Principal city: Saarbrücken (est. pop. 135,000).
Monetary unit: French franc.

The Saar is an industrial and mining region lying on Germany's western frontier north of Lorraine. Under the Treaty of Versailles it was detached from Germany and placed under the administration of the League of Nations, its coal mines being transferred to France. It voted in Jan., 1935, for reunion with Germany.

Part of the French zone of occupation after World War II, it now has, under agreements with France, legislative, executive and judicial autonomy, subject to the reserved powers of France in foreign relations, defense, and the maintenance of the economic, monetary and customs union between it and France. Under its constitution it has a popularly elected diet of 50 members, to which the cabinet headed by the premier is responsible. There is no head of state as such.

Coal reserves are conservatively estimated at 9,000,000,000 metric tons. Under an agreement concluded with France on Mar. 3, 1950, the mines are under French management with some Saar participation, an annual royalty being paid to the Saar by France. Production in 1950 was 15,090,000 metric tons of coal, 1,692,000 tons of pig iron and ferroalloys and 1,899,000 tons of steel ingots and castings.

Greece (Kingdom)

(Hellas)

Area: 51,182 square miles.*
Population (est. 1950)*: 7,960,000 (1940, excluding the Dodecanese: Greek, 92.8%; Turkish, 3.8%; Macedonian, 1.3%; Spanish, 1%; others, 1.1%).
Density per square mile: 155.5.*
Sovereign: King Paul I.
Premier: Sophocles Venizelos.
Principal cities (est. 1940): Athens (Athenai), 392,781 (capital); Piraeus (Peiraievs), 284,079 (port of Athens); Salonika (Thessalonike), 236,524 (seaport); Patras (Patrai), 61,278 (seaport); Kavalla, 49,980 (seaport; tobacco).
Monetary unit: Drachma.
Languages: Greek, Turkish.
Religions: Greek Orthodox, 96%; Mohammedan, 2%; Jewish, 1.1%; others, .9%.

* Including the Dodecanese.

HISTORY. Rugged, mountainous Greece—ancient cradle of one of the world's great civilizations—suffered cruelly in World War II and emerged as a land torn by civil war between its right and left political elements, while complete economic chaos reigned. World attention was focused on the little country (about the size of North Carolina) in 1946–49 as it became a center of political struggle between the Soviet Union and the bloc of western nations which opposed further Russian expansion.

Ancient Greece, with a recorded history going back to 776 B.C., reached the peak of its glory in the 5th century B.C., and by the middle of the 2nd century B.C., it had declined to the status of a Roman province. It remained within the Eastern Roman Empire until Constantinople fell to the Crusaders in 1204. In 1453, the Turks took Constantinople, and by 1460 Greece was a Turkish province. The insurrection made famous by the poet Lord Byron broke out in 1821, and in 1827 Greece was set up an independent nation, with sovereignty guaranteed by Britain, France and Russia. Prince Otto of Bavaria was recognized as king five years later, but he was ousted by a revolution in 1862. Prince William of Denmark, as George I, succeeded him.

Up to this time Greece consisted only of the Peloponnesus and the lower part of the peninsula north of the Gulf of Corinth. Britain gave Greece the Ionian Islands in 1864, and Thessaly was added in 1881. Greek success in the Balkan Wars of 1912–13 brought the addition of Macedonia, Epirus, Crete and many Aegean Islands. In World War I, Greece kept a precarious neutrality until June, 1917, when King Constantine (who had succeeded George I in 1913) was forced to abdicate in favor of his second son, Alexander. Greece then entered the war on the Allied side. By the Treaty of Sèvres, Greece was awarded Thrace and part of Asia Minor. Turkey, however, drove the Greeks out of Smyrna in 1922.

Greece was proclaimed a republic on March 25, 1924, and there followed strife and dissension between Royalists and Republicans, although fair order was maintained during the premierships of Eleutherios Venizelos from 1928 to 1933.

In 1935, the people voted for the return of King George II, who had abdicated in 1924 after a short rule. In April, 1936, General John Metaxas became premier and by August he had abolished parliament and set up a dictatorship.

Greece was invaded by the Italians in 1940. By April, 1941, the Greeks not only had driven the Italians out of Greece but were well into Albania. The Germans came to Mussolini's rescue, invaded Greece from Bulgaria, and took Athens on April 27, 1941. Starvation and harsh persecution of the Greeks were common during the Axis occupation. After liberation, Greece became a land of conflict with armed bands of Royalists and Communists terrorizing the nation. The government, which had fled the country, returned in Oct., 1944, following Greece's liberation by British forces. In less than two months, all the EAM (National Liberation Front) ministers, decided leftists, resigned from the government, setting up a crisis which brought on months of fighting between British troops and leftist resistance forces.

Peace was not restored until Feb. 12, 1945. Three short-lived premierships followed until the elections of March 31, 1946, gave a majority of Assembly seats to the Populist (Royalist) party. Its leader, Constantine Tsaldaris, became premier on April 18, 1946. However, all the leftist groups boycotted the March elections, and the depredations of armed bands of Communists and Royalists continued.

The country approved the return of George II by a large majority in a plebiscite held Sept. 1, 1946. The king returned on Sept. 28 but died April 1, 1947, and was succeeded by his brother Paul I.

An important recent development in troubled Greece has been the extension of U. S. financial and technical assistance, supervised by a U. S. mission. In May, 1947, the U. S. appropriated $300,000,000 for Greek aid.

U. S. supplies enabled Greek forces to make good progress against the Communist guerrillas, and the cessation of hostilities was announced on Oct. 16, 1949.

U. S. aid has also had a stabilizing effect on perennially unstable Greek politics. Tsaldaris' right-wing cabinet yielded in Jan., 1947, to a coalition headed by Demetrios Maximos. On Sept. 7, with U. S. approval, Themistocles Sophoulis, veteran Liberal leader, took over at the head of a Liberal-Populist cabinet with Tsaldaris as deputy premier. The aged Sophoulis survived several Cabinet crises but died June 24, 1949. He was succeeded by Alexander Diomedes, who kept the coalition cabinet with several minor changes. Elections held Mar. 5, 1950, resulted in a centrist victory; in deference to U. S. insistence upon a strong government, Nicholas Plastiras was named premier on Apr. 14 at the head of a cabinet commanding a majority in parliament. However, he gave way to an all-Liberal cabinet, formed by Sophocles Venizelos on Aug. 21 and broadened to include Social Democrats and Populists on Sept. 13; Sophocles Venizelos became premier following the elections of Sept. 9, 1951.

GOVERNMENT AND DEFENSE. Greece is a constitutional hereditary monarchy. Nominal executive power is vested in the king, but the government is administered by a Council of Ministers, headed by the premier, which must enjoy the Assembly's confidence. Under the terms of the 1947 U. S. loan, U. S. officials are advising various departments of the government, which is noted for its inefficiency.

The sovereign, Paul I, was born Dec. 14, 1901, and was married Jan. 9, 1938, to Princess Frederika Louise of Brunswick. They have one son, Prince Constantine, born June 2, 1940 (the heir apparent), and two daughters.

Military service is compulsory. U. S. aid in 1948 made possible an increase in army strength from 120,000 to 132,000; the National Guard was also increased from 30,000 to 50,000. Greek forces, which were advised by a U. S. military mission, were demobilized to some extent following the cessation of hostilities with the guerrillas in Oct., 1949. An infantry unit of 1,000 men and several aircraft were dispatched to Korea. In Dec., 1950, the navy had one cruiser, 2 fleet destroyers, 6 submarines and 16 frigates and escort craft.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 7 and 12. Illiteracy was estimated at 38 per cent in 1940. In 1948–49, there were 9,986 elementary schools, with 1,218,000 pupils; 507 secondary schools, with 169,836 pupils; and 2 universities (Athens and Salonika), with 13,337 students.

The predominant religion is Greek Orthodox, the religion of the state, but all faiths are tolerated.

About three-quarters of the population engages in agricultural pursuits, although only one-fifth of the land is arable. Most of the cultivated area is devoted to cereals: wheat (1950: 900,000 metric tons), barley (200,000 tons) and corn (195,000 tons). There are also olive trees, vines, tobacco (1949: 46,000 metric tons) and currants. Olive oil production in 1949 was about 150,000 tons. The principal fruits are oranges, lemons, figs, mandarins, apples and pears. At the beginning of 1949, there

were 6,631,000 sheep, 674,000 cattle and 518,000 hogs. Wool production in 1949 was 8,800 short tons.

Development of large-scale Greek manufacturing is blocked by lack of coal resources and of capital. The most valuable products are textiles, chemicals and food items. Among other processed or manufactured products are olive oil, wine, spirits, flour, carpets, leather, cigarettes and building materials. Postwar industrial rehabilitation has proceeded slowly, hampered by war damage and subsequent internal strife.

Postwar trade has been financed largely by U. S. aid. Recent figures are as follows (in billions of drachmas):

	1948	1949	1950*
Exports	470	575	452
Commercial imports	1,822	2,048	2,141

* Provisional.

Chief exports in 1950 were tobacco (42%) and currants and raisins (32%). Leading customers were Germany (20%), the U. S. (17%) and Britain (15%); leading suppliers, the U. S. (32%), Britain (12%) and Germany (8%).

The large prewar merchant marine, comprising 589 ships of 1,812,723 tons and 710 sailing vessels of 55,417 tons, played a vital part in the national economy. World War II shipping losses amounted to 1,178,000 tons; the merchant marine on June 30, 1950, totaled 386 ships (100 tons and over) aggregating 1,348,874 gross tons, according to *Lloyd's Register*.

Railway mileage in 1949 totaled 1,615; highway mileage in Dec., 1949, 10,378, about 60 per cent of which was in poor condition. Reconstruction of the transport system, financed by U. S. aid, was completed in 1949; it included extensive work on highways, port and dry-dock facilities, railways and bridges.

Postwar inflation has been severe and is still unchecked. The budget for the fiscal year 1950–51 on current account estimated expenditures at 5,245,000,000,000 drachmas and revenue at 4,300,000,000,000 drachmas; the deficit was to be financed by ECA and U. S. military-assistance funds. The investment budget of 3,567,000,000,000 drachmas was to be covered entirely by ECA funds.

Greek minerals are varied but are exploited only moderately. Principal ones are lignite, iron ore, iron pyrites, magnesite, chromite, lead, bauxite, molybdenum, emery, marine salt and the country's famous marble. A fifth of the country is forested, largely with pine, fir and oak. Resin and turpentine are main forest products. The principal sea product is sponges.

TOPOGRAPHY AND CLIMATE. North central Greece, Epirus and western Macedonia all are mountainous. The main chain of the Pindus Mountains rises to 9,000 feet in places, separating Epirus from the plains of Thessaly. Greek Thrace is mostly a lowland region separated from European Turkey by the lower Maritsa River. The area of the mainland is 41,328 square miles. Among the many islands are the Ionian group off the west coast, 742 square miles in area; the Cyclades group to the southeast, 996 square miles; other islands in the eastern Aegean, including Lesbos, Samos and Khios, 1,486 square miles; and Crete, the fourth largest Mediterranean island, 3,199 square miles. Crete, largely mountainous, is about 160 miles in length, with a width varying from 7 to 35 miles.

The Dodecanese (area 1,035 sq. mi.), a group of 13 islands in the Aegean Sea near the coast of Asia Minor, were ceded to Greece by the 1947 Italian peace treaty and formally transferred on March 7, 1948.

The Greek climate is varied but generally similar to that of other Mediterranean countries. The maritime regions have a temperate climate, with short winters and little snow or frost. In the uplands the winters are long and severe. Precipitation is heaviest in the mountains. Mean temperature at Athens is about 63°, with maximum of 99° in July and minimum of 31.5° in January. The summer heat is moderated by sea breezes and cool northerly winds from the mountains.

Guatemala (Republic)

(República de Guatemala)

Area: 45,452 square miles.
Population (census 1950): 2,787,000 (Indian, 60%; white, 5%; mixed and other, 35%).
Density per square mile: 61.3.
President: Jacobo Arbenz Guzman.
Principal cities (census 1940): Guatemala City, 163,826; est. 1946, 225,000 (capital); Quezaltenango, 33,538 (coffee, sugar); Puerto Barrios, 15,784 (chief Atlantic port); Zacapa, 14,443 (coffee, livestock).
Monetary unit: Quetzal.
Language: Spanish.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Once the site of the ancient Mayan civilization, Guatemala was conquered by Spain in 1524 and for the next 300 years was the major center of Spanish government in Central America. Guatemala was one of the founders of the Central American Union in 1823, and in 1839 set itself up as a republic. From 1898 to 1920 the dictator, Manuel Estrada Cabrera, ran the country, and from 1931 to 1944, General Jorge Ubico Castañeda was the "strong man." In July, 1944, the National Assembly elected General Federico Ponce president, but he was overthrown in October, and in December Dr. Juan José Arévalo was elected as the head

of a leftist regime which continued to press its reform program in the face of conservative resistance. He took office on March 15, 1945. Jacobo Arbenz Guzman, administration candidate, won the Nov., 1950, elections and took office March 15, 1951.

The eastern border is the object of dispute with Great Britain; in Feb., 1948, two British cruisers were dispatched to British Honduras to meet threatened attacks by Guatemala.

The Constitution of 1945 provides that a president shall be elected every six years by direct popular vote and cannot succeed himself immediately. Legislative power is vested in a unicameral National Assembly whose 68 members are popularly elected for four-year terms, half the members being elected every two years. Guatemala has an army of 22,000 and a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Education, advanced under Ubico, is free and compulsory. In 1948, a total of 195,463 pupils attended the 3,626 primary schools, while 62 secondary schools had total enrollment of 9,000. The University of Guatemala is located in Guatemala City. Illiteracy was reported to be only 25% in 1950.

Most of the ruling class is drawn from the 5 per cent of the population that is white. Spanish is the official language, but at least eighteen Indian dialects are spoken. The Indians are the chief labor supply.

Agriculture engages 90 per cent of Guatemalans. Coffee accounts for a fifth of the cultivated land and a large part of the exports. Recent foreign-trade data are as follows (in millions of quetzales):

	1948	1949	1950
Exports	50.1	52.2	67.6
Imports	68.4	68.0	71.2

In 1950, the U. S. took 89% of the exports and supplied 68% of the imports. Chief exports were coffee (78%) and bananas (11%). Imports included flour, petroleum products, drugs, textiles and clothing.

Guatemalan manufacturing is small and local. The country has 600 miles of public railway connecting the coasts, 280 miles of private railway and 4,800 miles of highways. Puerto Barrios, on the Atlantic side, is the main port of entry, and is linked by rail to the capital.

The national budget for 1950–51 provided for expenditure of $45,000,000, and the national debt in May, 1948, was $3,845,695.

Guatemala has reserves of gold, silver, lead, tin, copper, mercury, coal, antimony, salt, chromite and sulfur, but many of these minerals exist in insufficient quantity to justify exploitation, and only lead and chromite are produced commercially.

The country's vast forests, mostly in the Petén region, yield chicle for chewing gum, cinchona bark, a small amount of rubber, and dyewoods and cabinet woods, such as cedar, mahogany and logwood. About 15,000,000 acres are in hardwoods and 3,000,000 acres in softwoods.

TOPOGRAPHY AND CLIMATE. Most of Guatemala is mountainous, with many volcanic peaks, including Tajumulco, 13,814 feet high and the loftiest in Central America. The northern part is the great plain of Petén, largely uncultivated, sparsely populated, and geographically part of the Yucatán peninsula. The narrow Pacific slope, well watered and fertile, is the most densely populated and the most productive part of Guatemala. The climate is hot and humid on the coasts, with heavy rainfall, but is temperate in the highlands. The rainy season lasts from May to October in the interior, and often until December on the coast. January is the coldest month and May the warmest.

Haiti (Republic)

(République d'Haïti)

Area: 10,748 square miles.
Population (census 1950): 3,111,000 (Negro, 95%; mulatto, 5%).
Density per square mile: 289.4.
President: Paul E. Magloire.
Principal cities (census 1950): Port-au-Prince, 142,840 (capital, chief port); Cap Haïtien, 24,957 (seaport); Gonaïves, 13,534 (farming district); Les Cayes, 11,835 (seaport; coffee).
Monetary unit: Gourde.
Language: French.
Religion: Roman Catholic.

HISTORY. Haiti, the only Negro republic in the Western hemisphere, occupies the western third of the island of Hispaniola, which was discovered by Columbus in 1492. Its political past is stormy, and today it is the smallest and most thickly populated of the American republics, a nation beset by illiteracy and poverty.

After successive Spanish and French domination, Haiti became a kingdom in 1801 under Toussaint L'Ouverture, a Negro leader. He was later captured by the French and died in prison, but the kingdom lasted and declared its independence in 1804, becoming a republic in 1820. In 1822 Haiti took over all of Hispaniola, and carried on until 1843, when the eastern two-thirds of the island revolted and established the Dominican Republic. Today the island is the only one in the world containing two sovereign nations.

Decades filled with revolution, corruption and disease came to a bloody climax in 1911–15, when Haiti had seven presidents in four years. After the assassination of the last one, United States Marines moved in. By a 1916 treaty, the United

States agreed to help administer the country until the Haitians proved themselves capable of orderly self-government. The last Marines left in 1934, but a U. S. fiscal expert continued to supervise customs until 1941. On January 11, 1946, President Elie Lescot was driven from the country by revolution, and a three-man military junta took over until the election of President Dumarsais Estimé on Aug. 16, 1946. He was ousted in 1950 and succeeded after new elections by Paul E. Magliore.

GOVERNMENT. Normally the president is elected for six years by two-thirds vote of the National Assembly. That body consists of a 37-member Chamber of Deputies, elected for four years by popular vote; and a 21-member Senate elected for six years. The Garde d'Haïti, about 5,000 strong, serves as army and police force.

SOCIAL AND ECONOMIC CONDITIONS. Most Haitians are descended from African slaves. Their illiteracy rate is estimated at 92 per cent. Although 1949 figures showed enrollment of 97,000 in primary and secondary schools, actual attendance is probably lower. A campaign against illiteracy under UNESCO auspices was initiated in 1947. The mulattoes—lightened by the blood of the early French settlers—dominate the political and social life of the nation. Many of them are Paris-educated. While the ruling classes speak pure French, most of the people speak the patois of Creole French, and many of them still practice the strange folk religion of voodoo.

Haiti is predominantly agricultural. Coffee, which makes up more than 30 per cent of Haitian exports, is the principal crop, followed by sisal, sugar cane, cotton, bananas and cacao. Coffee exports in 1949–50 amounted to 26,242 metric tons. Manufacturing is almost entirely for local consumption, but there are several sisal factories and sugar refineries.

Recent trade data are as follows (in millions of gourdes):

	1947–48	1948–49	1949–50
Exports	154.4	155.1	192.4
Imports	161.0	157.1	181.0

Leading exports in 1949–50 were coffee (53%), sisal (24%) and sugar (7%). Leading customers were the U. S. (56%), Belgium (16%) and Italy (12%). The U. S. was the principal supplier (76%).

In 1951 Haiti had about 2,000 miles of improved road and 180 miles of railway. International air service is provided by PAA and KLM.

More than 75 per cent of Haitian revenue is derived from customs duties on exports and imports. The 1950–51 budget balanced government revenue and expenditure at $21,058,000. The net public debt on Sept. 30, 1950, was $8,556,800, about 75 per cent internal.

Minerals, relatively unexploited, include gold, silver, iron, copper, antimony, tin, coal, nickel and gypsum. In 1943, a sizable bauxite deposit was found and signed over for U. S. development. Inland Haiti has forests of mahogany, pine, lignum vitae and other commercial woods. Output of the fisheries is insufficient for local needs.

TOPOGRAPHY AND CLIMATE. Haiti, about the size of Maryland, is two-thirds mountainous, with the rest marked by great valleys, extensive plateaus and small plains. The most densely populated and productive region is the Cul de Sac plain, near Port-au-Prince. Rivers are swift and generally not navigable. The climate is hot on the coast, temperate in the mountains, with hurricanes frequent in the May-to-October rainy season. Port-au-Prince has a mean annual temperature of 81°.

Hashemite Kingdom of Jordan. See Jordan

Honduras (Republic)

(República de Honduras)

Area: 59,145 square miles.
Population (census 1950): 1,533,625 (mestizo, 86%; Indian, 10%; Negro, 2%; white, 2%).
Density per square mile: 25.9.
President: Juan Manuel Gálvez.
Principal cities (est. 1949): Tegucigalpa, 62,263 (capital); San Pedro Sula, 24,425 (bananas, sugar); Comayagüela, 16,907 (twin city of Tegucigalpa); La Ceiba, 13,456 (seaport, bananas).
Monetary unit: Lempira.
Language: Spanish.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. Columbus discovered Honduras on his last voyage in 1502; it was a Spanish colony and part of Guatemala until 1821, the year of the general Central American revolt against Spain. Honduras declared its independence in 1838, and has been troubled by revolution and war ever since. American Marines intervened in 1903 and 1923. In 1931, 1932 and 1937, major revolutions were crushed by force. The Nicaraguan-Honduras boundary dispute of 1937 almost caused war, and in April, 1945, the country was invaded from Guatemala by a group of Honduran exiles, who were suppressed.

Legislative power is held by the unicameral Congress of Deputies, whose 49 members are popularly elected for six years. The president also is elected for six years and is not supposed to succeed himself, but Congress twice extended the term of President Tiburcio Carías Andino. His 16-year tenure ended Jan. 1, 1949, when Juan Manuel Gálvez, the administration candidate in the Oct., 1948, elections, took office.

Military service is compulsory. The army is estimated to be slightly under the 2,500 strength agreed upon by the Central American states.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and supposedly compulsory, but less than 25 per cent of the children go to school. The government is trying to reduce illiteracy, estimated at 82 per cent. In 1949, there were 1,700 primary schools, with 83,619 students, and 27 secondary schools, with 1,340 students. The National University at Tegucigalpa had about 500 students.

Most of the population is of mixed Spanish-Indian blood, but the ruling class is of nearly pure Spanish descent. Except among isolated Indian tribes, Spanish is the common language. Most of the Negroes are British subjects imported for plantation work.

Honduran economy depends upon bananas, which usually account for more than 50 per cent of the nation's exports. The biggest plantations are along the northern coast. Exports in 1949–50 totaled 13,801,374 stems, more than 90 per cent produced by two U. S. companies. Other crops are corn, coffee, rice, henequen, tobacco and coconuts. Honduras also is an important source of sarsaparilla. Cattle raising and dairy farming flourish on rich pasture lands. Manufacturing is small and local.

Recent foreign trade data are as follows (in millions of lempiras):

	1947–48	1948–49	1949–50
Exports*	39.0	41.6	43.5
Imports	71.2	68.0	68.3

* Unadjusted for banana undervaluation.

In 1949–50 the U. S. took 69% of the exports and supplied 79% of the imports. Leading exports were bananas (31%), coffee (15%) and silver.

Honduras' railroads—920 miles—are almost entirely owned by fruit companies and used to transport bananas; they are confined to the northern coastal area. Since the country is mountainous and rugged, aviation has become an important means of travel. Despite its small size, the country has 63 landing fields. Highway mileage is estimated at 1,200 miles. Lake Yojoa and several rivers are navigable for small vessels.

The budget for the fiscal year 1950–51 was estimated at 25,000,000 lempiras. The internal debt was 8,892,822 lempiras on June 30, 1950; the external debt, 1,123,375 lempiras.

In 1949 Honduras produced 16,102 troy ounces of gold and 3,421,206 troy ounces of silver; these are the two most important mineral products. Copper and iron exist in paying quantity but are undeveloped. The country is noted for rich forest resources, particularly the tropical hardwoods. In 1949–50, 2,279,036 bd. ft. of mahogany lumber and logs and 28,901,277 bd. ft. of pine were exported.

TOPOGRAPHY AND CLIMATE. Honduras, in the north central part of Central America, has a 400-mile Caribbean coast-line and a 40-mile Pacific frontage. Generally mountainous, it has fertile plateaus and river valleys and narrow coastal plains. The Bahia (Bay) Islands, off the north coast, produce large quantities of coconuts. Of numerous rivers on the northern slope of Honduras, the Ulua drains a third of the nation and is navigable for most of its course. The climate is oppressive in the coastal lowlands, pleasant in the interior highlands. At Tegucigalpa, maximum temperature is about 90° (in May), and minimum 50° (December).

Hungary (Republic)

Area: 35,893 square miles.
Population (census 1948): 9,201,158* (Magyar, German, Slovak).
Density per square mile: 256.2.*
Chairman of Presidium: Sandor Ronai.
Prime Minister: Istvan Dobi.
Principal cities (census 1948*): Budapest, 1,058,288 (capital, Danube port); Szeged, 132,688 (textiles, wheat); Debrecen, 119,570 (livestock); Kecskemét, 88,283 (horticulture); Pécs, 77,529 (farming).
Monetary unit: Forint (replacing Pengö).
Languages: Hungarian, German, Slovak.
Religions (est.): Roman Catholic, 64.9%; Greek Catholic, 2.3%; Helvetian Evangelical, 20.9%; Augsburg Evangelical, 6.1%; Jewish, 5.1%; others, .7%.

* Provisional figures.

HISTORY AND GOVERNMENT. Fascist-minded militarists and greed for more territory lined up Hungary with Germany and Italy just before World War II. The fruits of this alliance and the resultant defeat of Hungary were a smashed economy, wild inflation, poverty, Soviet occupation and a reparations debt of $300,000,000. Politically the Soviet-supported Communist minority was thoroughly defeated by the conservative Small Landholders in the 1945 elections, yet it succeeded in taking over most of the key positions in the government. Controlling the police, the Communists waged a war of nerves against the Small Landholders, eventually forcing the resignation of Prime Minister Ferenc Nagy on May 30, 1947, and securing the appointment of a left-wing Small Landholder, Lajos Dinnyes, in his place. Then, shortly before the 1947 peace treaty became effective, a national election was carried out on Aug. 31, with the Communists replacing the Small Landholders as the dominant party. President Tildy resigned July 30, 1948, and on Aug. 3 leftist vice-premier Arpad Szakasits was

elected. Dinnyes was replaced as prime minister on Dec. 10, 1948, by Istvan Dobi, another left-wing Small Landholder. The arrest and conviction of Catholic Cardinal Mindszenty for alleged treasonable activities in Feb., 1949, brought worldwide criticism of the Communist regime.

Two thousand years ago Hungary was part of the Roman provinces of Pannonia and Dacia on the empire's borders. In A.D. 894 it was invaded by the Magyars, who founded a kingdom. Christianity was accepted during the reign of Stephen I (St. Stephen) from 997 to 1083. The peak of Hungary's great period of medieval power came in 1342–82 under King Louis the Great (Louis I) of Anjou, whose dominions touched the Baltic, Black and Mediterranean Seas. When the Turks smashed a Hungarian army in 1526, western and northern Hungary accepted Hapsburg rule to escape Turkish occupation. Transylvania became independent under Hungarian princes. Intermittent war with the Turks was waged thereafter for some years.

After the suppression of the 1848 revolt against Hapsburg rule led by Louis Kossuth, the dual monarchy of Austria-Hungary was set up in 1867.

The dual monarchy was defeated with the other Central Powers in World War I, and the new Hungary underwent hard times. First there was a short-lived Socialist Republic in 1918. The chaotic Communist rule of 1919 under Béla Kun ended with the Rumanians occupying Budapest on Aug. 4, 1919. When the Rumanians left, Admiral Nicholas Horthy entered the capital with a national army. The Treaty of Trianon of June 4, 1920, cost Hungary 75 per cent of its land and more than 50 per cent of its population. Meanwhile, the National Assembly had restored the legal continuity of the old monarchy, and on March 1, 1920, Horthy was elected regent. Former King Charles made two unsuccessful efforts to return to the throne in 1921.

After 1920 Hungary was, in effect, ruled by its great land owners, but the turn came in 1932 with the accession of General Julius de Gömbös, a pro-Fascist, as prime minister. Under Gömbös and his successors, Kaloman Daranyi in 1936 and Béla Imrédy in 1938, co-operation with Italy and Germany was Hungary's guiding principle. Hungary signed the anti-Comintern pact on Jan. 13, 1939, and the Three Power Pact of Germany, Italy and Japan on Nov. 20, 1940. As inducement and reward for these actions, Hungary got part of Slovakia and all of Ruthenia from Czechoslovakia in 1938 and 1939; and northern Transylvania from Rumania in 1940.

Following the German invasion of Russia on June 22, 1941, Hungary joined the attack against the U.S.S.R., but the war was not popular and Hungarian troops were almost entirely withdrawn from the eastern front by May, 1943. The government of Nicholas von Kállay was overthrown March 19, 1944, and German occupation troops set up a puppet government after Admiral Horthy's appeal for an armistice with advancing Soviet troops had resulted in his overthrow on Oct. 16. The German regime soon fled the capital, however, and on Dec. 23 a provisional government was formed in Soviet-occupied eastern Hungary. On Jan. 20, 1945, it signed an armistice in Moscow.

On Feb. 1, 1946, the National Assembly approved a constitutional law abolishing the 1,000-year-old monarchy and establishing a republic. Up to that time, Admiral Horthy had been regent for a non-existent king.

The Soviet-type constitution adopted by Parliament on Aug. 18, 1949 declared Hungary to be a "people's republic." The supreme organ of state control was declared to be the Parliament, with deputies elected every 4 years by direct vote. When Parliament is not in session, power is exercised by the presidium headed by a chairman. Executive power is vested in the cabinet headed by the premier.

Only the Communist-controlled, left-wing coalition was represented in the National Assembly after elections held May 15, 1949, in which only one slate of candidates was presented.

PEACE TREATY OF 1947. The final peace treaty which took effect Sept. 15, 1947, fixed Hungary's frontiers as they were on Feb. 1, 1938, except that a small bridgehead on the south bank of the Danube opposite Bratislava was ceded to Czechoslovakia. Hungary was to pay reparations of $300,000,000 over a period of 8 years, $200,000,000 to the Soviet Union and $100,000,000 to Yugoslavia and Czechoslovakia. The treaty also provided freedom of navigation on the Danube for nationals of all states.

The strength of Hungarian armed forces was fixed by the treaty as follows: army, 65,000, including frontier, anti-aircraft artillery and river flotilla personnel; air force, 90 planes with a personnel of 5,000. Soviet troops are permitted to maintain communication through Hungary to Austria until a treaty with Austria takes effect.

SOCIAL AND ECONOMIC CONDITIONS. Education is state-controlled and is compulsory between the ages of 6 and 14. Parochial schools were nationalized in 1948. In 1950–51 there were 6,185 elementary and general schools, with 1,229,957 pupils, and 389 secondary schools, with 94,046 pupils. The 21 universities and colleges had 31,000 students.

Under laws passed in 1927–28, optional

social insurance was placed under the control of the national social insurance institute, which offered medical, hospital, old age and disability insurance. Insurance for farmers was made obligatory. The Land Reform Act issued in March, 1945, provided for the confiscation of all estates over 1,500 acres; about 8,000,000 acres were divided among some 500,000 families. Collectivization of agriculture is now being emphasized.

Agriculture is the basis of Hungarian economic life, engaging more than half the population. Of the total area, 63.6 per cent can be cultivated and 17.9 per cent is meadowland and rough pasture. Cereals grown in the fertile Danubian plains are the chief crops. Leading crops in 1948 were wheat (1,583,314 metric tons), corn (2,861,709 tons), potatoes (2,116,881 tons), barley (691,719 tons), rye (785,696 tons) and sugar beets (1,771,000 tons). In addition, the cultivation of vines, fruit and garden produce is important; the famous Tokay wine is produced on the southern slopes of the Hegyalja in the northeast. Wine production averages 100,000,000 U. S. gallons annually (1950: 85,000,000 U. S. gallons).

Horse-breeding is a traditionally important branch of agriculture. Hungarians have a great love for horses, and their excellent breeds were exported in large numbers before World War II. Livestock in 1949 included 600,000 horses, 1,870,000 cattle, 700,000 sheep and 3,250,000 hogs.

The dominant industries are all based on agriculture, with flour milling in first place, followed by sugar refining, brewing and canning. The second group of industries make hardware and machinery. Most of the machine industry is concentrated in Budapest and Győr. Cotton leads the textile industry, especially in Budapest, which is also a center of woolen manufactures. Hemp and flax weaving are important. In 1945 there were about 4,350 manufacturing establishments with 180,000 workers. About 90 per cent of industrial production was nationalized under laws enacted in 1946 and 1948. Legislation in the latter year affected about 500 mining and industrial enterprises employing more than 100 persons each. In addition, the Soviet Union has taken over all German-owned plants as reparations, and in 1946 Soviet-Hungarian companies were formed to exploit bauxite, petroleum, and air and river navigation.

Foreign trade figures for two years are as follows (in millions of forint):

	1947	1948
Exports*	1,042	1,933
Imports	1,453	1,975

* Excluding reparations shipments.

The chief customers in 1948 were Britain, 17 per cent; U.S.S.R., 17 per cent; Czechoslovakia, 13 per cent; and Austria, 7 per cent. The leading suppliers were U.S.S.R., 15 per cent; Yugoslavia, 15 per cent; Britain, 14 per cent; and Czechoslovakia, 13 per cent. Chief exports were grain, 15 per cent; textiles, 12 per cent; live animals and animal products, 11 per cent; and machinery, 9 per cent. Leading imports included coal, oil, iron and steel products, forest products, minerals and ores.

The focal point in the country's transportation system is the Danube River, navigable for 423 miles in Hungary. The nation's central location makes it the center of an important transit trade; its prewar river fleet was the largest on the Danube. Railroad mileage in 1949 totaled 4,773; highway mileage in that year, 10,248. Transportation facilities suffered heavy damage in the last part of the war.

The 1950 budget placed revenue at 17,537,000,000 forint and expenditure at 17,454,000,000 forint. The national debt (postwar only) on Dec. 31, 1946 totaled 1,630,000,000 forint.

While Hungary generally is mineral-poor, it has an estimated 250,000,000 tons of bauxite—about 25 per cent of the world's known reserves. Production in 1949 was estimated at 600,000 metric tons. The coal is of low quality and is insufficient to meet domestic needs; production in 1948 was 1,061,502 metric tons, and output of lignite was about 10,620,000 tons. Other minerals include iron ore, manganese and gold. Petroleum production in 1949 was about 3,790,000 barrels. Uranium is reported to exist in Hungary.

About 12 per cent of Hungary is forested, but the products are of little importance. There are valuable fisheries in Lake Balaton and on the Danube.

TOPOGRAPHY AND CLIMATE. Most of Hungary is a fertile, rolling plain lying east of the Danube, and drained by the Danube and the Tisza Rivers. In the extreme northwest is the Little Hungarian Plain. South of that area is Lake Balaton, 250 square miles, the largest lake of western and central Europe; to the west of it lies the Bakony Forest, part of an upland extension of the Alps, called the Hungarian Mittelgebirges. Entering Hungary in the northwest, the Danube flows south through the central plain. The Tisza, rising in the eastern Carpathians, also flows south through eastern Hungary.

Hungary's mean annual temperature ranges from 48° in the north to 52° in the south. Precipitation varies from 30 to 35 inches in the Bakony Forest to less than 15 inches in the east; most of the rain falls in May and June. High summer temperatures and a long autumn are favorable to agriculture.

Iceland (Republic)

(Ísland)

Area: 39,709 square miles.*
Population (est. Dec. 31, 1950): 144,500 (almost entirely Icelandic).
Density per square mile: 3.6.
President: Sveinn Björnsson.
Prime Minister: Steingrimur Steinthorsson.
Principal city (est. 1950): Reykjavik, 54,800 (capital and only large town).
Monetary unit: Króna.
Languages: Icelandic, Danish.
Religion: Evangelical Lutheran.

* Including several off-shore islands.

HISTORY. Iceland, in the North Atlantic on the rim of the Arctic Circle, did not fight in World War II, but still it won and lost in the conflict. It won its complete independence from Denmark but lost its placid isolation when the United States and Great Britain moved in to prevent German seizure, and to establish air and naval bases. A new era then dawned for Iceland. Because of its strategic position on the great-circle air route between America and Europe, about half way between New York and Moscow, the country assumed new significance in an air-minded world.

Iceland was first settled shortly before 900, mainly by Norse. A constitution drawn up about 930 created a form of democracy and provided for an Althing, or General Assembly, now the oldest legislative body in the world. In 1262–64, Iceland came under Norwegian-Danish rule. Through five centuries of intermittent plague, earthquake, famine and volcanic eruption, the stout Icelanders endured, and in 1874 they obtained their own constitution. In 1918 Denmark recognized Iceland as a separate state with unlimited sovereignty, but still nominally under the Danish king. On June 17, 1944, after a popular referendum, the Althing proclaimed Iceland a completely independent republic.

The British occupied Iceland in 1940, immediately after the German invasion of Denmark. In 1942, the United States took over the burden of protection. Iceland refused to abandon its neutrality in World War II, and thus forfeited charter membership in the United Nations, but it was cooperative with the Allies throughout. Iceland joined the North Atlantic treaty organization in 1949, and in May, 1951, U. S. troops again landed at Iceland's request to aid in its defense preparations.

GOVERNMENT. Constitutionally, the president is elected for four years by popular vote. President Björnsson was named to the office in 1944 by acclamation of the Althing and was re-elected in 1945 and 1949 for regular four-year terms. Executive power resides in a Prime Minister. The Althing is composed of two houses, one with 17 members and the other with 35; each has equal constitutional power.

Iceland has no army or navy.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy is virtually unknown in Iceland. Education is compulsory from 7 to 14, and mobile schools are sent traveling through the sparsely settled areas. When the University of Iceland, established in 1911, needed new buildings in 1935, the government licensed it to conduct a national lottery to raise the funds. The high number of scholarships and the low tuition fees make higher education virtually free to any qualified applicant.

Iceland publishes more books, newspapers and magazines per capita than any country in the world. Its language, Icelandic, has no dialects and has changed little through the centuries. In addition, Danish is widely understood and spoken. The Evangelical Lutheran Church is state-supported, but there is complete religious freedom. A social insurance system set up in 1935 and extended in 1946 provides accident, sickness and old age benefits, as well as hospital and medical care.

Approximately six-sevenths of Iceland is unproductive, and only one-fourth of one per cent is under cultivation. With about 30 per cent of the population engaged in farming, sheep raising is the most important branch of this industry. Hay, potatoes and turnips are the principal crops.

About one-sixth of the people are engaged in fishing, and fish and fish products make up the bulk of Iceland's exports. The annual catch averages about 350,000 tons (1950: 323,027 tons), and the total value of the industry was estimated in 1947 at $38,500,000. British, French and Norwegian fishing craft visit Iceland's fisheries, which lead the world in cod and are important for herring, plaice and halibut.

Recent trade data are as follows (in millions of krónur):

	1948	1949	1950
Exports	396	289	421
Imports	458	424	543

Fish and fish products accounted for 90% of the exports in 1950. Leading customers were the U. S. and the Netherlands (each 13%) and Britain (12%); leading suppliers, Britain (22%) and the U. S. (20%).

Iceland has no railways. Highways total about 3,700 miles. Motor vehicles are rapidly replacing the traditional horse-drawn cart. In 1950 the merchant marine totaled 558 vessels (12 tons and over), aggregating 91,339 gross tons.

Expenditure for the calendar year 1951 was estimated at 302,638,000 kr.; revenue, at 303,947,000 kr. The national debt was 271,665,000 kr. on Dec. 31, 1949.

TOPOGRAPHY AND CLIMATE. Iceland, a bleak, volcanic island about the size of Kentucky, has maximum dimensions of 298

by 194 miles; it is mostly tableland, high, rugged and barren. It is one of the world's most volcanic regions. Mt. Hekla (4,747 ft.), near the southern coast, is the most notable of its volcanoes, many of which are still active and cause frequent earthquakes. Small fresh-water lakes are found throughout the island, and there are many natural oddities including hot springs, geysers, sulfur beds, canyons, waterfalls and swift rivers. More than 13 per cent of the area is covered by snowfields and glaciers, and most of the people live in the 7 per cent of the island comprising fertile coastlands. One-third of the much-indented, 3,730-mile coastline belongs to a peninsula to the northwest, joined to the mainland by an isthmus four miles wide. Vegetation is of the Arctic type, mostly stunted. Except for peat and fisheries, Iceland has no natural resources.

The Gulf Stream modifies Iceland's climate to make it much like that of southern Canada, though with longer winters and shorter summers. The mean annual temperature at Reykjavik is 39.4°, with January the coldest month (34.2°) and July the warmest (51.6°).

Iran (Kingdom)

Area: 634,413 square miles.
Population (est. 1949): 18,387,000 (Iranian, Kurdish, Azerbaijani).
Density per square mile 28.9.
Ruler: Mohammed Riza Pahlavi.
Prime Minister: Mohammed Mossadeq.
Principal cities (est. 1948): Teheran, 850,000 (capital); Meshed, 250,000 (Moslem shrine); Tabriz, 214,000 (capital, Azerbaijan); Isfahan, 205,000 (cotton, tobacco); Abadan, 150,000 (petroleum).
Monetary unit: Rial.
Languages: Iranian (Persian), Kurdish, Azerbaijani.
Religions: Moslem (Shiah), about 90%; Moslem (Sunni), about 5%; Armenian; Jewish; Nestorian; Parsi.

HISTORY. Oil-rich Iran, roughly one-fifth the size of the United States, was called Persia before 1935. Its key location blocks the lower land gate to Asia, and also stands in the way of traditional Russian ambitions for access to the Indian Ocean. In modern times, Iran has drawn Big Power interest because of its rich oil deposits.

Iran's history is a long one of rising and falling dynasties. After periods of Assyrian, Median and Achaemenidian rule, Persia became a powerful empire under Cyrus the Great, reaching from the Indus to the Nile at its zenith in 525 B.C. It fell to Alexander in 331–30 B.C., to the Seleucidae in 312–02 B.C., and to the Parthians about 130 B.C. A native Persian regime arose about A.D. 224, was weakened fighting the Turks, and fell to the Arabs in 637. In the 12th century the Mongols took their turn ruling Persia, and in the early 18th century the Turks and Russians occupied it. In modern times, Russia, Turkey, Britain, France, and, most recently, the United States, all have taken keen competitive interest in Iran.

An Anglo-Russian convention of 1907 divided Iran into two spheres of influence. British attempts to impose a protectorate over all of Iran were defeated in 1919. On Feb. 26, 1921, General Riza Pahlavi seized the government and was elected hereditary shah in 1925. Subsequently he did much to modernize the country, and abolished all foreign extraterritorial rights.

Increased pro-Axis activity led to Anglo-Russian occupation of Iran in August, 1941, and deposition of the shah in favor of his son, Mohammed Riza Pahlavi.

In November, 1945, a Soviet-inspired autonomist movement won control of Azerbaijan, Iran's northwest province. To protect their advantage, the Russians kept troops in that area past the treaty evacuation date of March 2, 1946. The Iranians promptly protested this breach of agreement to the United Nations. The Russians evacuated their troops on May 6 but not before they had forced Iran to promise them oil concessions in the north.

Elections held in Jan., 1947, were won by the Government party of Ghavam-es-Saltaneh, who resigned Dec. 28, 1947, following a sharp Soviet protest against rejection of the oil pact by parliament. Subsequent cabinets were weak and inefficient. Lt. Gen. Ali Razmara took office June 26, 1950, and pledged to restore efficient and honest government, but he was assassinated March 7, 1951. Mohammed Mossadeq took over April 29. The next day, parliament completed action on a bill nationalizing the oil industry. The action was taken over strong British protests, but Britain evacuated the oil refineries Oct. 3, 1951.

GOVERNMENT AND DEFENSE. Iran is a constitutional monarchy, and the shah has the usual powers of the head of a parliamentary state. Executive power is exercised by a cabinet headed by the prime minister, who is appointed by the shah and is responsible to the Majlis (parliament), which has 136 popularly-elected members.

In May, 1949, the constitution was amended to permit the shah to dissolve the Majlis; at the same time legislation was enacted to set up an upper house or Senate provided by the 1906 constitution but never established.

Military service is compulsory; the initial training period is 2 years. The army, modernized and reorganized by Riza Pahlavi, father of the present shah, consists of about 130,000 men. The air force has several hundred planes, and the navy several small craft in the Persian Gulf. There is also a U. S.-trained police force of 20,000.

SOCIAL AND ECONOMIC CONDITIONS. Education has made good progress in the last 25 years, supplanting the old and essentially religious system. In 1938 (latest data available in 1951) there were 8,381 schools, with attendance of 457,236. There are universities at Teheran and Tabriz. Illiteracy is high, though decreasing.

Iran is predominantly agricultural. Large estates are numerous, and irrigation is common, especially on the central plateau. The principal crops are wheat (est. 1950: 1,980,000 tons) and barley (800,000 tons). Rice production, confined largely to the Caspian provinces, was estimated at 480,000 tons in 1949.

Other crops include grapes, dates, apricots, tobacco, tea, cotton, sugar beets and corn. There are extensive grazing lands. Wool production in 1948–49 was estimated at 11,000 tons; in Dec., 1948, there were 11,000,000 sheep.

Iran must still import many manufactured necessities, but several new factories were established by the government after 1925 including sugar plants, rice and oil mills, textile factories, a cement factory, copper smelter, glycerine factory and small arms factory. The Chalus silk mill produces 1,000,000 yards or more a year. Both sugar and tobacco are government monopolies. The manufacture of carpets, for which Iran is famous, is the most valuable industry.

Foreign-trade data (trade years beginning March 21) are as follows, in billions of rials:

	1948–49	1949–50	1950–51
Exports	19.01	17.17	26.40
Imports	5.48	9.32	6.98

The chief exports in 1948–49 were petroleum and products, 90 per cent; rugs and carpets, 3 per cent; and fruits and berries, 3 per cent. Leading customers were Britain, 40 per cent; India, 11 per cent; and the U. S., 4 per cent. Chief suppliers were the U. S., 30 per cent; Britain, 27 per cent; and India, 9 per cent.

Motorable roads in 1949 totaled some 17,000 miles, about one-fifth asphalted. Railway mileage open to traffic was 1,748 (1948). The principal line (870 mi.) connects Bandar Shahpur on the Persian Gulf with Bandar Shah on the Caspian Sea. It carried 5,000,000 tons of supplies to Russia during World War II. Iranian State Airlines and other lines provide service.

The budget for 1950–51 forecast revenue of 9,552,846,499 rials and expenditure of 9,549,595,000 rials. The internal debt in Dec., 1948, was 5,400,000,000 rials. Income from various monopolies and oil royalties are important.

Considerable mineral wealth exists, but only oil is exploited commercially. The principal field, near Shushar in the southwest, was worked until 1951 by the Anglo-Iranian Oil Company. The latter's concession began in 1901 and was to run until 1993, but its properties were nationalized by the Iranian government in April, 1951. Production in 1950 was 31,750,000 long tons (about 240,000,000 barrels). The refinery at Abadan processed 24,855,171 tons.

The main forest belt on the northern Elburz slope supplies railroad ties, charcoal and firewood. Gums are the most valuable forest product. Fisheries are worked in the Persian Gulf and the Caspian Sea.

TOPOGRAPHY AND CLIMATE. Iran is, in general, a plateau averaging 4,000 feet elevation. In addition, there are maritime lowlands along the Persian Gulf and the Caspian Sea. The Elburz Mountains in the north rise to 18,603 feet at Mt. Demavend. From northwest to southeast, the country is crossed by a desert 800 miles long and 100 to 200 miles wide. Iran's only navigable river is the Karun in the southwest.

The central plateau is hot in summer and very cold in winter, but the Caspian area has a sub-tropical climate. Mean temperatures vary at Teheran from 35° in January to 85° in July (yearly average 62°); at Bushire, on the Persian Gulf, from 58° in January to 90° in July and August (average 75°). Rainfall is light.

Iraq (Kingdom)

Area: 116,600 square miles.*
Population (census 1947): 4,794,449 (Arab, 75%; Kurdish, 15%; Iranian, 3.75%; others, 6.25%).
Density per square mile: 41.1.
Ruler: King Faisal II.
Regent: Crown Prince Abdul-Ilah.
Prime Minister: Nuri as-Said.
Principal cities (est. 1946): Baghdad, 832,927 (capital); Mosul, 279,361 (farming, oil); Basra, 181,814 (chief port).
Monetary unit: Dinar.
Languages: Arabic, Kurdish.
Religions: Moslem (Shiah), 53%; Moslem (Sunni), 35%; Christian, 2.8%; Jewish, 2.5%; others, 6.7%.

* Excluding southern and western desert areas.

HISTORY. Iraq, a triangle of mountains, desert and fertile river valley less than half the size of Texas, is bounded east by Iran, north by Turkey, west by Syria and Jordan, and south by Saudi Arabia. From earliest times it has been known as Mesopotamia—the land between the rivers—for it embraces a large part of the alluvial plains of the Tigris and Euphrates.

An advanced civilization existed in Mesopotamia by 4000 B.C. Sometime after 2000 B.C. it became the center of the ancient Babylonian and Assyrian empires. It was conquered by Cyrus the Great of Persia in 538 B.C., and by Alexander in 331 B.C. After an Arab conquest in A.D. 637–40, Baghdad became capital of the ruling caliphate. The country was cruelly pillaged by the Mon-

gols in 1258, and during the 16th, 17th and 18th centuries was the object of repeated Turkish-Persian competition.

Nominal Turkish suzerainty imposed in 1638 was replaced by direct Turkish rule in 1831. In World War I an Anglo-Indian force occupied most of the country, and Britain was given a mandate over the area in 1920. The British recognized Iraq as a kingdom in 1922 and terminated the mandate in 1932, when Iraq was admitted to the League of Nations. In World War II, Iraq generally adhered to its 1930 treaty of alliance with Britain, but in 1941 British troops were compelled to put down a pro-Axis revolt led by Prime Minister Rashid Ali. Iraq became a charter member of the Arab League in March, 1945 and Iraqi troops took part in the Arab invasion of Palestine in May, 1948.

King Faisal II, born on May 2, 1935, succeeded his father, Ghazi I, who was killed in an automobile accident on April 4, 1939. The king's uncle, Abdul-Ilah, is regent.

GOVERNMENT AND DEFENSE. Under the 1924–25 constitution, Iraq is a hereditary monarchy with a two-house Parliament. The Senate is named by the king for a term of eight years; the 115-member Chamber of Deputies is elected popularly for four years. Executive power is vested in a Council of Ministers, headed by the prime minister, whom the king appoints.

Military service is compulsory, with an initial training period of 1½ to 2 years. Army and air force strength in 1938 was 28,000. Both were trained and re-equipped by the British during World War II. The British-trained police force numbers about 21,000. The 1930 treaty gives Britain the provisional right to keep troops in Iraq.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is free and nominally compulsory. Secondary education is neither free nor compulsory. There are no universities. In 1948–49 there were 1,050 state elementary schools, with 150,588 pupils, and 93 intermediate and secondary schools, with 16,721 pupils. Fourteen colleges had a combined enrollment of 4,500.

The chief economic activity is agriculture, dependent upon irrigation and confined to the valleys of the Tigris and Euphrates. Iraq supplies about 80 per cent of the world's dates (1949: 120,000 metric tons). Chief among the cereal products of Iraq are barley (1950: 900,000 metric tons), wheat (600,000 tons), rice, sorghum, maize, and millet. Many fruits and some tobacco and cotton are grown. Grazing is the principal occupation of the many nomadic and seminomadic tribes. Livestock estimates in 1949 included 822,000 cattle, 7,000,000 sheep, 2,000,000 goats and 291,000 camels. Wool production in 1949 was 11,000 metric tons.

Industry is still embryonic. Of approximately 100 manufacturing firms, the most important are those making brick, tile, woolen textiles, vegetable oils, soap, glass and cigarettes.

Recent foreign-trade data are as follows (in millions of dinars):

	1948	1949	1950
Exports	19.8*	26.2*	44.5*
Imports	45.5	40.6	37.4

* Adjusted to include estimated value of crude petroeum exports.

Chief exports in 1949 were petroleum (51%), barley (20%) and dates (11%). In 1948, Palestine and Jordan took 43% of the exports; France, 16%; and India, 8%.

The only port for seagoing vessels is that of Basra, located on the Shatt al-'Arab River near the head of the Persian Gulf. River vessels plying the Tigris between Basra and Baghdad have tonnage of more than 60,000. There are about 4,000 miles of improved and unimproved roads. Iraq State Railways, the only rail line, operates three lines totaling 1,555 miles. There is an airport and seaplane base at Basra.

Oil production centers at the Baba Gurgur fields near Kirkuk are operated on behalf of an international group by the British-managed Iraq Petroleum Company (production 1950: 6,160,756 long tons).

Oil is piped to Haifa in Palestine and Tripoli in Lebanon. Another field is operated by the Kanaqin Oil Company (Anglo-Iranian Oil Company subsidiary), and produces only for local consumption (production 1950: 384,150 long tons).

The 1951–52 budget amounted to 28,800,000 dinars. The capital works budget, based on oil royalties, usually balances the ordinary budget. There is no external debt.

TOPOGRAPHY AND CLIMATE. Iraq has arid desertland west of the Euphrates, a broad central valley between the Euphrates and Tigris, and mountains in the northeast. The fertile lower valley is formed by the delta of the two rivers, which join about 120 miles from the head of the Persian Gulf. The gulf coast line is 26 miles.

Iraq's climate, generally, runs to great extremes—long hot summers and short cold winters. The area on the Persian Gulf is one of the hottest places in the world. Average temperature at Baghdad is 49° in January and 92° in July and August.

Ireland (Republic)

Area: 26,601 square miles (not including larger water bodies).
Population (census 1951*): 2,958,878 (almost entirely Irish).
Density per square mile: 111.2.
President: Séan T. O'Kelly.
Prime Minister: Éamon de Valera.
Principal cities (census 1946): Dublin

(Baile Atha Cliath) 506,635 (capital); Cork, 75,361 (seaport); Kingstown (Dun Laoghaire), 44,689 (seaport); Limerick (Luimneach), 42,987 (seaport).

Monetary unit: Irish pound.

Languages: Gaelic, English.

Religions (census 1946): Roman Catholic, 94.3%; Protestant Episcopal, 4.2%; Presbyterian, .8%; others, .7%.

* Provisional figures.

HISTORY. The young Republic of Ireland —formerly Eire, and before that the Irish Free State—is an agrarian state that occupies five-sixths of the island of Ireland west of England, across the Irish Sea.

About the beginning of the Christian era, Ireland was divided into five kingdoms —Ulster, North Leinster, South Leinster, Munster and Connaught—each with its own ruler, but each subject to the overlord of all Ireland who dwelt at Tara. St. Patrick introduced Christianity in A.D. 432 and became the country's patron saint.

Norse depredations along the coasts, starting in 795, ended in 1014 with Norse defeat at the Battle of Clontarf by forces under Brian. In the middle of the 12th century, the Pope gave all Ireland to the English crown as a papal fief. In 1171 Henry II of England was acknowledged "Lord of Ireland," but native sectional rule continued for centuries, and English control over the whole island was not reasonably absolute until the 17th century. By the Act of Union (1800), England and Ireland became the "United Kingdom of Great Britain and Ireland."

The great potato famine of 1846–48 took many lives and drove millions to emigrate to America.

Several home-rule bills were introduced in the English Parliament in the 19th century, but failed of passage. One was finally approved in 1914, but enforcement was suspended by the outbreak of World War I. During the war, agitation for freedom was carried on by the nationalist party—Sinn Féin (Ourselves). In 1916 the British quickly suppressed the famous Easter Week rebellion and executed its leaders.

After the 1918 elections, seventy-three of the Sinn Féiners elected to the English Parliament met in Dublin, proclaimed themselves an Irish Parliament, and passed a declaration of independence. The result was war between Irish nationalists and British troops from January, 1919, to May, 1921. A treaty ratified in December, 1921, gave Ireland political status equal to that of Canada. Six Ulster counties, largely Protestant, formed a separate government as Northern Ireland, closely bound to England; the other twenty-six became the Irish Free State. Republican extremists, headed by Éamon de Valera, refused for several years to recognize the treaty.

William Cosgrave, leader of the Sinn Féin's right wing, was president from 1922 to 1932. In the latter year, De Valera's party, Fianna Fáil, won control of the government. Under De Valera's leadership a new constitution was adopted in 1937 making the nation, in effect, a republic. The country's former name of "Eire" was restored by the constitution.

Dr. Douglas Hyde, elected without opposition as Eire's first president in 1938, was succeeded in 1945 by Séan T. O'Kelly, the Fianna Fáil nominee. The country maintained strict neutrality during World War II.

De Valera's long tenure as prime minister came to an end in Feb., 1948, when the Fianna Fáil lost its absolute majority in the parliamentary elections. John A. Costello, a Fine Gael moderate, took office at the head of a six-party coalition cabinet on Feb. 18, 1948, but De Valera returned to power on June 13, 1951, after new elections.

The nation severed its last ties with the British crown at midnight April 17, 1949, and officially proclaimed itself the Republic of Ireland on the next day—Easter Monday.

GOVERNMENT AND DEFENSE. Ireland is a sovereign, independent republic. The president, directly elected for seven years, names the prime minister on the nomination of the Chamber of Deputies. Parliament (Oireachtas) has two houses. The Chamber of Deputies (Dáil Eireann) has 147 members elected by proportional representation for a five-year term. The Senate (Seanad Eireann) has 60 members, of whom 11 are named by the prime minister, 6 by the universities, and 43 from vocational panels; its powers are limited.

Party representation in the Dáil Eireann after the elections of May 30, 1951, was as follows: Fianna Fáil, 69; Fine Gael, 40; Labour, 16; Farmers, 6; Clann Na Poblachta, 2; independents, 14.

Military service is voluntary. The army has a permanent authorized strength of 12,500. In 1938 Britain gave up its last defense posts in Eire, including those at Cobh, Berehaven and Lough Swilly.

SOCIAL AND ECONOMIC CONDITIONS. Elementary education is free and is provided in state schools; secondary education is under private control, notably the religious orders. Technical and agricultural education is under local control, aided by state subsidies. The 4,922 elementary schools had 446,082 pupils in 1948–49; 408 secondary schools had 45,406 students. The University of Dublin (Trinity College), founded in 1591, had an enrollment of 2,380 in 1948–49, and the National University of Ireland (constituent colleges at Cork, Galway and Dublin) had 4,841.

The majority of the people are English-speaking, although the government has at-

tempted to promote the traditional Gaelic language, which is an essential part of the curriculum for all state schools.

Ireland is predominantly an agricultural country, with about 70 per cent of the total land area (17,000,000 acres) devoted to crops and pasture. The pastoral industry is the basis of the nation's economy, but recent years have brought a greater diversity in agriculture, marked by large increases in sugar beet and wheat production. Principal crops in 1950 were wheat, 327,600 long tons; rye, 3,200 tons; oats, 528,400 tons; potatoes, 2,874,100 tons; sugar beets, 588,000 tons; and flax, 1,400 tons. Other staple crops are turnips, cabbage and hay. Livestock in June, 1950, included 4,321,582 cattle, 2,384,639 sheep and 645,000 hogs. Wool output in 1949 was 7,000 tons; butter output, 38,280.

The government's self-sufficiency policy, plus financial and tariff inducements, have promoted considerable industrial development since 1928. The leading manufactures, in order of value, are ordinarily beverages, tobacco, wood, paper, clothing, textiles and metals. The hydroelectric plant erected on the Shannon River in County Limerick provides cheap electricity for homes and factories.

Trade statistics are as follows (in millions of Irish pounds):

	1948	1949	1950
Exports	49.3	60.6	72.4
Imports	136.3	130.2	159.6

The leading customer in 1950 was Great Britain (74%), followed by Northern Ireland (13%) and the Netherlands (2.6%). Britain was also the chief supplier (51%), followed by the U. S. (13%) and Canada (3.7%). Major exports in 1950 were cattle and horses (39%), eggs in shell (7%), ale (7%) and poultry (6%). Major imports were machinery and vehicles, textiles, wheat, coal, corn, and iron and steel and manufactures.

The merchant marine in 1948 had 448 vessels with a net tonnage of 46,161. Almost all transport facilities are nationalized. Railway mileage is about 2,500. Main roads in 1949 totaled 49,071. Shannon is rapidly developing into a key international airport. There are 670 miles of canals and navigable waterways.

The 1951–52 budget forecast expenditure at £81,600,000 and revenue, on the basis of existing taxation, at £80,482,000. The public debt on March 31, 1951, was £178,919,000; assets were £111,614,000.

In 1950, Ireland mined 198,000 short tons of coal, some gypsum, and considerable peat from its bogs, but otherwise the mineral resources are negligible, as are those of the forests. The fishing industry employs about 10,000 men. The 1950 catch, including mackerel, herring, whiting, cod, plaice and shellfish, was valued at £436,901.

TOPOGRAPHY AND CLIMATE. Occupying the entire island except for the six northern counties of Ulster, Ireland resembles a basin—a central plain rimmed with mountains, except in the Dublin region. The mountains are low, with the highest peak, Carrantuohill in Kerry County, rising 3,415 feet. The principal river is the Shannon, which begins in the north central area, flows south and southwest for about 240 miles and empties into the Atlantic. About 20 per cent of the country is covered by bogs. Among the many lakes are the famous Lakes of Killarney in the southwest county of Kerry.

A moist and mild climate, with annual rainfall running between thirty and forty inches fairly evenly distributed throughout the year, is influenced by the Gulf Stream, which makes the winters warmer than in other places in the same latitude. The mean temperature at Dublin is 41.7° in January and 60.5° in July.

Israel (Republic)

Area (approximate): 7,800 square miles.
Population (est. 1950): 1,247,000 (87% Jewish).
Density per square mile: about 159.9.
President: Dr. Chaim Weizmann.
Premier: David Ben-Gurion.
Principal cities (est. 1949): Jaffa-Tel Aviv, 325,000 (industrial center); Haifa, 150,000 (chief port); Jerusalem (Israeli), 110,000 (capital).
Monetary unit: Israeli pound (£I).

HISTORY. The history of Palestine, cradle of two of the great religions of the world, and homeland of the modern state of Israel, is mostly a chronicle of invasion, conquest and confusing divisions. To the ancient Hebrews it was known as the "Land of Canaan"; the name Palestine is derived from that part of the country inhabited by the Philistines of Biblical times. About 1000 B.C. the Hebrews succeeded in establishing a single monarchy, which later split up into two kingdoms—Judah and Israel. The country was subsequently invaded and overcome by many peoples, including the Assyrians, Babylonians, Egyptians, Persians, Macedonians, Romans and Byzantines. In A.D. 634–36, Palestine was wrested from the Byzantine Empire by the Arabs. Frankish Crusaders captured Jerusalem in 1099 and set up a feudal kingdom which endured until the defeat of the Franks by Saladin (1187) and the restoration of Moslem rule. In 1516 suzerainty over the area was transferred from the Mamelukes of Egypt to the Turks. It remained part of the Ottoman Empire until World War I, when British forces under General Allenby defeated the Turks and captured Jerusalem (Dec. 9, 1917). The League of Nations mandate awarded to Britain was put in force Sept. 29, 1923.

Meanwhile, a movement had been founded in 1897 by Theodor Herzl to create a Jewish homeland in Palestine, and a considerable number of Jewish immigrants had entered the country prior to World War I. On Nov. 2, 1917, official British recognition was given both to the growing Arab nationalist movement and to the Zionist aspirations by the issuance of the so-called Balfour Declaration.

The declaration was attacked by the Arabs. Throughout the period between the two World Wars, outbreaks of violence and open revolt occurred. Jewish immigration continued, especially after the rise of Hitler. A British royal commission report approved by the British Government July 7, 1937, recommended the partition of Palestine into an Arab and a Jewish state separated by a mandated area in the vicinity of Jerusalem and at Nazareth. The Arabs opposed the proposal, advocating instead the establishment of an independent Palestine with full minority rights for the Jews. In May, 1939, the British Government issued a White Paper declaring the establishment of a Jewish state contrary to British obligations to the Arabs and promising, after a transitory period of ten years, the establishment of an independent Palestine in which Arabs and Jews would share authority in government. During the next five years, 75,000 Jews were to be allowed to enter Palestine. These proposals did not satisfy either party, and the League Mandates Commission questioned their validity, but the outbreak of World War II overshadowed all other issues.

Arab-Jewish co-operation in the war effort introduced a period of order, but the end of European hostilities in 1945 brought a renewal of friction and the formation of the Arab League in that year served to demarcate lines of opposition. By 1946, there were many acts of terrorism by the Irgun Zvai Leumi, an illegal army, and the Stern Gang, both of which were repudiated by the Jewish Agency for Palestine. In July, 1946, a proposal was made in London for a federalized Palestine consisting of Arab, Jewish and British districts and subject to a British-controlled central government. This "Morrison Plan" had British support, but was unacceptable to President Truman and was attacked by Arabs and Jews alike.

Attempts to bring Jewish immigrants into Palestine illegally were intensified thereafter, and terrorism grew apace. Meanwhile, on Feb. 14, 1947, the Attlee government referred the whole problem to the United Nations for advice. The majority report of a special U. N. investigating committee recommended to the General Assembly in Sept., 1947, that Palestine be partitioned into Arab and Jewish states which would be independent politically but united economically. Jerusalem would be under international trusteeship. The minority recommended a federal unitary state similar to that proposed by Britain in Feb., 1947 and rejected by both sides.

Acceptance of the majority report by the U. N. General Assembly on Nov. 29, 1947 touched off new outbreaks of violence which British troops had difficulty in controlling. The decision was generally accepted by the Jews, but members of the Arab League announced their determination to resist partition by force, if necessary.

The Security Council voted on April 2, 1948, to call a special session of the General Assembly to reconsider the partition plan and possibly to put Palestine under temporary U. N. trusteeship. Instead, the Assembly, without disturbing the partition plan, voted on May 14 to send a U. N. mediator to Palestine to attempt to secure peace. Count Folke Bernadotte of Sweden was unanimously chosen mediator, May 20.

Termination of the British mandate on May 14 and withdrawal of British forces brought new violence. An independent state of Israel was immediately proclaimed by the Jewish National Council, and Arab forces converged on Palestine from the south, north and east, spearheaded by the crack British-trained Arab Legion of King Abdullah of Jordan. Within a few hours Arab-Jewish hostilities were in full swing. On June 1, however, both sides accepted a Security Council request for a four-week truce which went into effect on June 11. Count Bernadotte's efforts to effect a compromise were unsuccessful, and on July 9 hostilities were resumed. On July 15 the Council voted to invoke for the first time Article 39 of the U. N. Charter; it declared the situation a menace to world peace and effected an indefinite truce by threatening to employ sanctions or military force to end the conflict. By July 21 all fighting had again ceased and Count Bernadotte resumed his efforts to bring about a lasting compromise. He was assassinated on Sept. 17 within the Israeli-held area of Jerusalem by Jewish dissidents, and his duties were taken over by Dr. Ralph Bunche.

Fighting broke out again in October, 1948, on the southern front, in the course of which Israeli forces made important gains against Egyptian positions in the Negeb and even penetrated a short distance into Egypt before the final cease-fire took effect on Jan. 7, 1949.

On Feb. 24, 1949, Israel and Egypt concluded an armistice agreement, the general effect of which was to freeze Israeli and Egyptian positions, with some exceptions, without prejudice to a final political settlement. Israel and Jordan concluded a similar pact on April 3 in respect

to central and eastern Palestine and Jerusalem.

In April, 1950, Arab-held eastern and central Palestine, including the Old City of Jerusalem, was incorporated into Jordan by action of the Jordani parliament.

The partition plan adopted by the U. N. in Nov., 1947, had awarded three distinct parts of Palestine to the Jews. The northernmost, situated immediately west of the River Jordan and around the shores of the Sea of Tiberias, has Safad and Tiberias as its most important towns, and includes the greater part of the valley of Jezreel. The western and economically most important region lies along the Mediterranean from Haifa and the Plain of Esdraelon in the north to the Rehoboth area in the south and includes the coastal plain of Sharon—the center of Palestine's citrus industry—the port of Haifa, one of the best in the Near East, and the city of Tel Aviv, a growing industrial center. The third region consists of the greater part of the Negeb, the southern desert area with an outlet to the Red Sea at the head of the Gulf of Aqaba.

In addition, Israel holds western Galilee, awarded to the Arabs under the partition plan, and a broad corridor from Tel Aviv to Jerusalem through central Palestine, all of which had been awarded to the Arabs, as well as part of modern Jerusalem, which under the partition plan was to be placed under U. N. trusteeship.

GOVERNMENT. The declaration of independence, issued May 14, 1948, by the Jewish National Council (*Vaad Leumi*), stated that the new nation would be "based on the precepts of liberty, justice and peace taught by the Hebrew prophets." On Feb. 14, 1949, the Constituent Assembly adopted a constitution setting up a republican form of government headed by a president elected for a 5-year term by the Chamber of Deputies. Legislative power is vested in the Chamber of Deputies, the members of which are elected by the vote of all citizens who have reached the age of 21. The government is administered by the cabinet headed by the premier and collectively responsible to the Chamber of Deputies.

Elections held July 30, 1951, divided the 120 seats in the Chamber of Deputies (*Knesset*) as follows: Mapai (Labor), 46; General Zionist (rightist), 20; parties associated with Mapai, 17; Mapam (United Workers), 15; Communists, 5; others, 17.

The constitution characterizes Israel as the national home of the Jewish people and directs the admission of every Jew who desires to settle within its borders, subject to control of the Chamber of Deputies. Between May, 1948, and Dec. 31, 1949, 345,000 Jewish immigrants entered Israel. Thereafter, the monthly average was in excess of 10,000.

The army numbered about 75,000 in 1951.

SOCIAL AND ECONOMIC CONDITIONS. Education is under the supervision of the Ministry of Education. Kindergarten and elementary education is free; most secondary schools are semiprivate. In 1949 there were 447 Jewish elementary schools, with 85,585 pupils; 45 Arab schools, with 7,091 pupils; 38 Jewish secondary schools, with 10,498 students; and 1 Arab secondary school, with 404 students. The Hebrew University in Jerusalem had 1,500 students.

Agriculture is the chief economic activity. The maritime plain, the plain of Esdraelon and the northern Jordan valley are the principal agricultural areas. Citrus growing, confined largely to the maritime plain, normally furnishes the major export crop. Others include olives, rice, fresh fruits and vegetables, figs, tobacco, wheat, barley, corn, sesame and potatoes. There are many collective and co-operative rural settlements.

Industry is developing rapidly, especially the food-processing, textile, metalworking and chemical groups. Diamond cutting, although dependent on rough diamond imports, is of major importance; and there are oil refineries and storage tanks at Haifa, a terminus of the pipeline from the Iraqi oil fields.

Recent foreign-trade statistics are as follows (in millions of Israeli pounds):

	1948*	1949	1950
Exports	1.3	10.6	13.2
Imports	23.9	87.7	102.6

* Last six months.

Chief exports in 1950 were citrus fruits and concentrates (49%), polished diamonds (24%) and woolen manufactures (7%). Leading customers were Britain (29%), the U. S. (22%) and Denmark (7%); leading suppliers, the U. S. (37%), Britain (9%) and Italy (6%).

Mineral resources are limited. They include gypsum, sulfur, limestone, and rock salt, together with potash and bromine from the Dead Sea. There are few forest areas, and wood is a major import.

Internal communication is provided by 205 miles of railway (in operation, 1951) and a good highway network totaling 1,220 miles (1950). The excellent airport at Lydda, near Tel Aviv, is served by major international lines and El Al, Israel's international line. The merchant marine had 17 vessels (100 tons and over), aggregating 74,000 gross tons in Dec., 1950.

Israel has been heavily dependent on international loans. The interim budget for the period Apr. 1–Sept. 30, 1951, placed ordinary expenditure at £143,480,000 and development expenditure at £135,000,000.

TOPOGRAPHY AND CLIMATE. Northern Israel is largely a plateau traversed from north to south by mountains and broken by great depressions, also running from north to south. The maritime plain is remarkably fertile, but the southern Negeb region, which comprises almost half the total area, is largely a wide desert steppe area. The Jordan, the only important river, rises in Syria and flows along the Jordan border through the Hule marshes and lake and the Sea of Tiberias (Galilee) into Jordani, Palestine and thence into the Dead Sea (1,290 feet below sea level). The western and southern shores of the Dead Sea are in Israel.

Summers are hot and dry, with occasional maximum temperature of 100°. The mean annual temperature at Jerusalem is 62.8°. Rainfall occurs chiefly in the autumn and spring; the mean annual average is 28 inches along the coast and 26 inches in Jerusalem.

Italy (Republic)

(Repubblica Italiana)

Area: 116,235 square miles.
Population (est. Jan. 1, 1951): 46,452,000 (predominantly Italian).
Density per square mile: 399.6.
President: Luigi Einaudi.
Premier: Alcide de Gasperi.
Principal cities (est. 1951): Rome, 1,678,664 (capital); Milan, 1,293,834 (leading financial, industrial center); Naples, 1,037,460 (seaport); Turin, 734,658 (auto works); Genoa, 678,012 (seaport); Palermo, 503,534 (Sicilian seaport).
Monetary unit: Lira.
Religions: Roman Catholic, 99.6%; others (Protestant, Orthodox, Jewish), .4%.

HISTORY. A former German satellite and later a cobelligerent of the Allies, Italy turned steadily to the West after a crucial national election in April, 1948, in which the Communists and their allies were defeated in their quest for power. The new republic adhered to the North Atlantic Pact in April, 1949, but the Soviet veto still barred it from membership in the United Nations.

About the size of New Mexico but long and narrow in shape, Italy did not exist as a unified country until 1870. Until A.D. 476, when the German Odoacer became head of the Roman Empire in the west, the history of Italy was largely the history of Rome. From A.D. 800 on, the Holy Roman Emperors, the Popes, Normans, Lombards and Saracens all vied for control over various segments of the Italian peninsula. Numerous city states, such as Venice and Genoa, and many small principalities flourished in the late Middle Ages.

In 1713, after the War of the Spanish Succession, Milan, Naples and Sardinia were handed over to Austria, but the Hapsburg influence on the peninsula was interrupted for a short time after 1800 when Italy was unified by Napoleon, who crowned himself King of Italy on May 26, 1805. After the Congress of Vienna in 1815, Austria continued to be the dominant power in Italy.

The movement for national unity began in the middle 19th century, staged by the "Young Italy" group headed by Giuseppe Mazzini. In 1858 Count Cavour, prime minister under King Victor Emmanuel II of Sardinia, secured the aid of Napoleon III of France in unifying Italy. After French and Sardinian forces had defeated the Austrians in 1859, Lombardy was annexed to Sardinia, and by the time the first Italian parliament opened at Turin in Feb., 1861, all Italy was represented except Venetia, held by Austria, and Rome, which was the territory of the Pope. On February 18, 1861, Victor Emmanuel II was proclaimed King of united Italy.

In 1866 Italy sided with Prussia against Austria and received Venetia; Rome was seized in 1870. In 1882 the young nation entered into the Triple Alliance with Austria and Germany. After war with Turkey in 1911–12, the Italians were awarded Tripoli in North Africa and the Dodecanese islands in the Aegean Sea.

Italy denounced the Triple Alliance on May 3, 1915, and declared war on Austria on May 24. By the treaty of St. Germain, on Sept. 10, 1919, the south Tirol and the Istrian peninsula were awarded to Italy.

In the years immediately following World War I, Italy was a virtual battleground between the Socialists and Benito Mussolini's new Fascist movement. The weak government was powerless to maintain order as the two sides fought for power. Finally, on Oct. 30, 1922, the Fascists staged their "March on Rome" and took over the government. Mussolini was named premier by King Victor Emmanuel III. Il Duce and his Fascist Grand Council soon made Italy into a corporate state, with himself as dictator.

In 1935–36 Italy successfully invaded, conquered and annexed Ethiopia, despite the complaints of the League of Nations and economic sanctions.

On November 6, 1937, Italy joined the German-Japanese anti-Comintern pact and on December 11 withdrew from the League of Nations. The Rome-Berlin Axis was converted into a full military alliance on May 22, 1939. Meanwhile, Italian troops had seized Albania in April, 1939.

WORLD WAR II. On June 10, 1940, Mussolini announced a declaration of war against France (already in the throes of defeat) and Britain. Italian troops were

able to advance only a few miles into France before the Armistice was concluded on June 24, under which Italy annexed a small strip of France. On October 28, 1940, Italian forces invaded Greece from Albania, but were driven back by the Greeks, who held a third of Albania by the time the Germans launched their Balkan campaign on April 6, 1941. Italy subsequently occupied parts of Yugoslavia and Greece. Following the German capitulation in North Africa and the fall of Sicily, Mussolini was ousted on July 25, 1943, and Marshal Pietro Badoglio formed a new government. On September 3, 1943, the date of the invasion of the Italian mainland by Allied forces, a military armistice was signed between General Eisenhower and Badoglio, and the legislative and administrative activities of the government were made subject to the approval of an Allied Commission.

On June 9, 1944, five days after the Allies entered Rome, Badoglio was succeeded as premier by Ivanoe Bonomi, a Socialist, who formed a coalition cabinet. The government was recognized by the Allies as the *de facto* government of Italy on October 25, but only as a cobelligerent, not as an ally. Later it was given full legislative powers and the right to resume diplomatic relations.

Upon the collapse of German resistance in the north, Mussolini was tracked down and put to death by partisan forces on April 28, 1945. On December 10, Alcide de Gasperi, a Christian Democrat, took over from Ferruccio Parri, who had succeeded Bonomi as premier in June.

On June 2, 1946, the Italian people voted in favor of a republic, and King Humbert II, who had succeeded his father on May 9, went into exile. De Gasperi remained at the helm, first with a coalition cabinet and later (June, 1947) with a Christian Democrat-Independent government.

The new constitution drafted by the constituent assembly took effect on Jan. 1, 1948. Following the Communist defeat in the elections of April, 1948, De Gasperi formed another coalition cabinet from which the Communist and left-wing Socialist bloc was again excluded. Luigi Einaudi, veteran Liberal leader, was elected first president of the Republic on May 11.

GOVERNMENT. Under the 1947 constitution Italy is a "democratic Republic founded on labor." The president is elected for seven years by parliament in joint session with regional delegates. The cabinet, headed by the premier and nominated by the president, must enjoy the confidence of parliament, which is composed of the Chamber of Deputies, popularly elected for a five-year term, and the Senate. All citizens are duty-bound to vote.

Articles 115–133 of the constitution introduced a new concept of regional autonomy, dividing the country into 19 regions with locally-elected governments which control regional affairs. Five regions, including the islands of Sicily and Sardinia, enjoy a special degree of autonomy. Below the regions in the governmental organization are the provinces and communes.

The Chamber of Deputies, elected on April 18, 1948, has 574 members, of whom 306 are Christian Democrat, 183 Popular Front (Socialist-Communist coalition), 33 right-wing Socialists, and 52 members of other parties. The Senate has 343 members, 237 of whom are elected by the regions; the other 106 are deputies who were imprisoned during the Fascist regime and former premiers who under the constitution hold their seats for life.

PEACE TREATY OF 1947. The peace treaty which took effect Sept. 15, 1947, required Italian renunciation of all claims in Ethiopia and Greece, the cession of the Dodecanese to Greece, and of five small Alpine areas to France. In addition, the major part of the Istrian peninsula, including Fiume and Pola, went to Yugoslavia. The Free Territory of Trieste was carved out of the area to the west of the new Yugoslav frontier.

Italy was to pay reparations of $100,000,000 in kind over a seven-year period to the Soviet Union, $125,000,000 to Yugoslavia, $105,000,000 to Greece, $25,000,000 to Ethiopia and $5,000,000 to Albania; also to make two-thirds restitution for wartime damage to Allied property in Italy.

DEFENSE. The 1947 treaty required Italy to reduce the strength of her army to 250,000 men (including *carabinieri*), the navy to 25,000 (including naval air arm) and the air force to 25,000 (with 350 planes). The fleet was reduced to 2 battleships, 4 cruisers, 20 destroyers and large torpedo boats, plus smaller craft. Major war vessels placed at the disposal of the Big Four included 3 battleships, 5 cruisers, 8 submarines and 13 destroyers and large torpedo boats. Extensive areas along Italy's borders and in the outlying islands were demilitarized.

EDUCATION. Elementary education is free and compulsory from 6 to 14. Elementary schools numbered 37,131 in 1947, with 4,703,228 pupils. The 5,573 secondary schools had 888,993 pupils, while 22 universities and institutions of higher learning had 189,665 students. The University of Rome (founded 1303) had 29,626 students; Naples (founded 1224), 31,950; and Milan, 20,002.

RELIGION. Although the country is predominantly Roman Catholic, religious freedom is permitted. Catholic religious teaching is given in all elementary and intermediate schools. Relations with the Church are regulated by the treaty with

the Holy See of Feb. 11, 1929, which established the temporal power of the Pope over Vatican City.

AGRICULTURE. Agriculture, the most important branch of Italy's economy, engages more than a third of the population. It is extremely diversified; differences of altitude, soil and climate allow the production of all European crops from rye to rice, from apples to oranges, and from hemp to cotton. Approximately 41,275,000 acres are cultivated. Italy ranks next to France in wine production (average 1931–42: 1,024,000,000 U. S. gal.; 1950: 925,000,000 gal.) and next to Spain in olive-oil production. The silk industry is centered in northern Italy and along the eastern coast. The Italian climate and soil are well suited to fruit growing.

Before World War II the Fascist government carried on a wide land reclamation program, mostly in Emilia, Apulia, and the Venetian provinces.

Crop data (in millions of metric tons):

Crop	1948	1949	1950*
Wheat	6,144	7,020	7,564
Rye	112	125	130
Barley	230	227	291
Oats	486	415	553
Sugar beets	3,409	3,415	3,528
Olive oil	98	179	....

* Provisional.

Livestock and dairy farming are important in Italy. Of the 50-odd varieties of Italian cheese, the best known are the hard parmesan and pecorino (the latter made from ewe's milk) and the soft bel paese and gorgonzola. Cheese production in 1949 totaled 237,000 metric tons. In 1950, Italy had 4,375,000 hogs; (1949) 8,300,000 cattle and 10,100,000 sheep. Wool production (1949) totaled 16,000 tons.

INDUSTRY. Prior to World War II, there were approximately 730,000 industrial establishments in Italy, of which more than 1,000 employed at least 250 workers each. In 1948, approximately 3,250,000 workers were employed in industry. While a large proportion of small and medium sized concerns were common in industry before World War II, there was a growing tendency, fostered by the nature of the corporate state, toward industrial concentration. The textile industry, largest and most important, ordinarily supplied most of the home markets and left a large margin for export. It made rapid recovery after World War II, accounting for nearly half of the nation's exports. The metal industries are handicapped by lack of coal and of sufficient iron ore reserves. The chemical, clothing and food industries are also important. Industrial production is centered in the north.

Production of steel ingots and castings in 1950 was 3,100,000 metric tons; that of pig iron and ferroalloys, 572,000 tons.

Italy's full participation in the European Recovery Program has had a stimulating effect on the nation's war-shattered economy and has relieved at least partially the food deficits resulting from over-population.

TRADE. Statistics of Italy's foreign trade, in billions of lire, are as follows:

	1948	1949	1950
Exports	570.6	632.6	746.4
Imports	848.6	869.0	900.4

Italy's leading customers by value in 1950 were Britain (11%), Germany (10%), France (9%) and the U. S. and Switzerland (each 6%). Principal suppliers were the U. S. (23%), Germany (8%), Britain (6%) and Argentina and France (each 5%). Chief exports were machinery and vehicles (16%), fruits and vegetables (15%), cotton products (12%), artificial fibers (mostly rayon) (11%) and wool and products (5%). Leading imports included grain, coal, cotton, wool and petroleum.

NATURAL RESOURCES. Italy is ordinarily the world's largest producer of mercury; it is also an important producer of sulfur. In 1950, 1,839 metric tons of mercury and 229,163 tons of sulfur were produced. The nation lacks, however, the staple minerals of coal, oil and iron, and is forced to import them. Production of coal and lignite in 1950 was 1,810,000 metric tons; 7,657,723 tons of coal were imported that year. Building stone, particularly marble, is plentiful. In the south Tirol and the central Apennines, Italy has abundant water power. In 1949, the total power generated was 20,784,000,000 kwh, mostly by hydroelectric plants.

Less than 20 per cent of Italy's area is forested. Principal products are soft and hard timber, charcoal and cork. The fishing industry does not fill domestic needs. Coral and sponges are marketed.

COMMUNICATIONS. According to *Lloyd's Register*, the merchant marine totaled 1,059 steam and motor ships (100 tons and over), aggregating 2,580,392 gross tons, on June 30, 1950. On April 1, 1951, 63 vessels, of 322,358 gross tons, were under construction in Italian yards.

There are more than 150 seaports, of which the principal are Genoa, Venice, Savona, Naples and Leghorn. Coastwise traffic is particularly important because of difficult land communications. Railways open to traffic in 1949 totaled 13,377 miles, of which 2,846 miles (1947) were electrified. Highways in 1949 totaled about 106,000 miles.

FINANCE. Data (in billions of lire):

	1949–50	1950–51*	1951–52†
Revenue	1,280	1,286	1,455
Expenditure	1,579	1,462	1,824

* Revised budget estimate. † Cabinet budget.

The total national debt was 2,323,205,000,000 lire in May, 1950.

TOPOGRAPHY. Approximately 600 of boot-shaped Italy's 708 miles of length are in the long peninsula that projects into the Mediterranean from the fertile basin of the Po River. The Apennines, branching off from the Alps between Nice and Genoa, form the peninsula's backbone, and rise to a maximum height of 9,560 feet at the Gran Sasso d'Italia (Corno). The Alps are Italy's northern boundary.

Several islands form part of Italy. Sicily, 9,926 square miles, lies off the toe of the boot, across the Strait of Messina, with a steep and rock-bound northern coast and gentler slopes to the sea in the west and south. Mt. Etna, an active volcano, rises to 10,741 feet, and most of Sicily is more than 500 feet in elevation. Sixty-two miles southwest of Sicily lies Pantelleria, 45 square miles, and south of that are Lampedusa and Linosa. Sardinia, 9,301 square miles, just south of Corsica and about 125 miles west of the nearest Italian mainland, is largely mountainous, stony and unproductive.

Italy has many northern lakes, lying below the snow-covered peaks of the Alps. The largest are Garda (143 sq. mi.), Maggiore (83 sq. mi.) and Como (55 sq. mi.). The Po, the principal river, rises in the Alps on Italy's western border and flows across the Lombard plain into the Adriatic. The Arno and Tiber Rivers, rising in the Apennines, flow generally westward. Elsewhere are hundreds of short streams.

CLIMATE. Italy's climate is variable. The Italian Riviera along the Gulf of Genoa is subtropical and highly favored by tourists. The winters in the high Apennines are cold and bitter. The western slope of peninsular Italy is warmer than the eastern side, and the Po basin in the north has cold winters and very hot summers. Sicily has a warm and equable climate. In Rome, December through February are the coldest months (average 47°), July and August the warmest (75°), with abundant sunshine.

FORMER ITALIAN COLONIAL EMPIRE

Country	Area, sq. mi.	Population (1949)
Eritrea	48,350	1,086,300
Italian Somaliland	194,000	955,000
Libya	679,183	1,177,000

Under the 1947 treaty, the Dodecanese were ceded to Greece. The treaty also contained a renunciation by Italy of all title to her African possessions. These territories were to remain under British administration pending their final disposal, to be determined jointly by the American, British, French and Soviet governments. These powers failed to reach agreement in Sept., 1948, and the question of disposition was referred to the U. N. General Assembly.

LIBYA—Status: Under temporary U. N. administration pending granting of independence.

U. N. High Commissioner: Adrian Pelt (the Netherlands).

Capitals: Tripoli (Tripolitania) (125,000), Bengasi (Cyrenaica) (65,000).

Foreign trade (1949): Tripolitania, exports, £1,332,800, imports, £3,458,800; Cyrenaica, exports, £1,565,400, imports, £1,894,400.

Agricultural products: barley, olive oil, wheat, figs, date palms, tobacco.

Mineral: salt.

Sea products: sponge, tuna.

Libya, lying along the north coast of Africa between Tunisia and Egypt, was a part of the Turkish dominions from the 16th century until 1911. Following the outbreak of hostilities between Italy and Turkey in the latter year, Italian troops occupied Tripoli; Italian sovereignty was recognized the next year by the Treaty of Ouchy. In 1934 the area was organized into four provinces—Bengasi, Derna, Misurata and Tripolitania—which were incorporated in 1939 into Metropolitan Italy, and a military territory in the south, Libyan Sahara (465,362 sq. mi.). Libya was the scene of much desert fighting during World War II. After the fall of Tripoli on Jan. 23, 1943, it came under British military occupation and government. It was divided for purposes of administration into Tripolitania and Cyrenaica, administered by Britain, and the Fezzan in the southwest Sahara, controlled by France.

The U. N. General Assembly voted on Nov. 21, 1949, that Libya as a united state should become independent by Jan. 1, 1952, with interim administration to be carried on by a U. N. commissioner advised by a 10-member council composed of representatives of Egypt, France, Italy, Pakistan, the U. K. and the U. S. and of Tripolitania, Cyrenaica, the Fezzan and the Libyan minorities.

The area has three natural divisions from the coast inland—the Mediterranean coastland, the only region suitable for agriculture; the sub-desert, and the desert. About 5 per cent of the population is Italian, the remainder native, mostly Moslem. Railroads total 242 miles.

Winters are cool and summers warm along the coast, and hotter in the interior. Bengasi has an average temperature of 55° in January and 78° in July.

ITALIAN SOMALILAND—Status: U. N. trust territory under Italian administration.

Administrator: Giovanni Fornari.

Capital: Mogadiscio (population: 45,000).

Foreign trade (1948): exports, £180,500; imports, £1,113,400.

Agricultural products: dressed skins, cattle, sugar, cotton, cottonseed oil, fruits, bananas.

Forest products: gum, resin, kapok.

Mineral: tin.

Italian Somaliland, extending along Africa's east coast from the Gulf of Aden south to Kenya, fell within the Italian sphere of influence by treaties with the Somali sultans in 1889 and by agreements with Britain in 1905 and 1924, with the sultan of Zanzibar in 1905, and with Ethiopia in 1907. After the conquest of Ethiopia in 1936, the area was incorporated into Italian East Africa. It was occupied in Feb., 1941, by British Imperial troops and, reduced to its pre-1936 area, was placed under British military administration.

Administration was turned over to Italy on Apr. 1, 1950, pursuant to a decision of the U. N. General Assembly on Nov. 21, 1949, under which the area is a U. N. trust territory. Administration is in the hands of Italy for a period of 10 years during which it is to be prepared for independence.

The overwhelming majority of the population are Somalis who belong to the Sunni sect of Islam; they are a pastoral, nomadic people whose livelihood depends on cattle, sheep and camels. However, the Italians (numbering 2,985 in 1949) established plantations in the south, especially in the fertile Juba region. The colony was far from self-supporting, requiring heavy Italian subsidy. The climate is torrid.

ERITREA—Former Status: Italian colony (now under British administration).
Capital: Asmara (population: 117,000).
U. N. Commissioner: Eduardo Anze Matienzo (Bolivia).
Foreign trade (1949): exports, £2,261,900; imports, £3,114,300. Chief export: hides and skins.
Agricultural products: coffee, barley, tobacco, sesame, hides, skins.
Minerals: gold, salt, potassium salts.
Sea product: pearls.

The first Italian inroad into Eritrea came in 1870 when the port of Assab and adjacent territory were bought from a native sultan; with British approval, Italian troops occupied Massaua in 1885. By a decree of Jan. 1, 1890, Italian possessions along the Red Sea were united into the colony of Eritrea. In 1936 Eritrea became a part of Italian East Africa. British and Indian troops captured Asmara on Apr. 1, 1941, and Massaua a week later; the area, reduced to its pre-1936 borders, then came under British military administration. The U. N. General Assembly on Dec. 2, 1950, adopted a plan for federation of an autonomous Eritrea with Ethiopia under the sovereignty of the Ethiopian crown, federation to become effective not later than Sept. 15, 1952.

The principal native elements are the Ethiopians and Tigrés, who have close ethnic, linguistic and religious ties with peoples across the border in Ethiopia. Italians in 1949 numbered 21,432. Irrigation is essential in the low-lying coastal plains, and agriculture is practiced largely on the interior plateau (average elevation: 6,500 ft.) where the climate is suitable for European settlement. The pastoral industry engages most of the natives.

Along the coast, the climate is excessively hot and humid, especially in June, September and October; mean annual temperature at Massaua is 86°; the thermometer often rises to 120° in summer.

Japan (Empire)

(Nippon)

Area: 146,690 square miles.*
Population (census 1950): 83,199,637.*
Density per square mile: 567.2.*
Supreme Commander for the Allied Powers: General Matthew B. Ridgway (U.S.A.).
Ruler: Emperor Hirohito.
Premier: Shigeru Yoshida.
Principal cities (census 1950): Tokyo, 5,385,071 (capital; financial, manufacturing center); (est. 1947) Osaka, 1,559,310 (chief industrial center); Kyoto, 999,396 (manufacturing); Nagoya, 853,085 (machinery, textiles); Yokohama, 814,268 (seaport, silk-export center); Kobe, 607,202 (seaport, shipbuilding); Fukuoka, 328,586 (seaport, textiles); Niigata, 263,495 (manufacturing).
Monetary unit: Yen.
Language: Japanese.
Religions (1938): Buddhism, 60%; Shintoism, 21%; Protestant (215,166); Roman Catholic (118,856).

* Japan proper.

HISTORY. Japan's early history is inseparable from mythology. A series of legends attributes the creation of Japan to the sun goddess, from whom the later emperors were allegedly descended. The first of them was Jimmu Tennō, supposed to have ascended the throne on Feb. 11, 660 B.C.

Recorded Japanese history begins with the first contact with China in the 5th century A.D. Japan was then divided into strong feudal states, all nominally under the emperor, but with real power often held by a court minister or clan. In 1185 Yoritomo, chief of the Minamoto clan, was designated shogun (generalissimo) with the actual administration of the islands under his control. Clans came and went, but a dual government system—shogun and emperor—persisted till 1867.

First contact with the West came about 1542, when a Portuguese ship off course arrived in Japanese waters. Portuguese traders, Jesuit missionaries, and Spanish, Dutch and English traders followed. Suspicious of Christianity and Portuguese support of a local Japanese revolt, the shoguns restricted all foreigners in 1636–38 except the Dutch, who were confined to Nagasaki. Western attempts to renew trading relations failed until 1853, when Commodore Matthew Perry sailed an American fleet into Tokyo Bay with a letter from President Fillmore. A U. S. commercial treaty signed in 1859 was followed by sim-

ilar pacts with Britain, France, the Netherlands and Russia, and the opening to foreign residents of the ports of Yokohama, Nagasaki and Hakodate.

Japan now quickly made the transition from a medieval to a modern power. Feudalism was abolished and industrialization was speeded. An imperial army was established with conscription. The shogun system was abolished in 1867 by Emperor Meiji, and parliamentary government was established in 1889. After a brief war with China in 1894–95, Japan acquired Formosa (Taiwan), the Pescadores islands, and part of southern Manchuria. China also recognized the independence of Korea (Chosen), which Japan later annexed (1910).

In 1904–05 the new Japan won prestige by defeating Russia in the Russo-Japanese War, gaining the territory of southern Sakhalin (Karafuto) and Russia's port and rail rights in Manchuria. In World War I Japan, which took a negligible part in military operations, seized Germany's Pacific islands and leased areas in China. The Treaty of Versailles then awarded her a mandate over the islands.

At the Washington Conference of 1921–22, Japan agreed to respect Chinese national integrity. The series of Japanese aggressions which was to lead to the nation's downfall began in 1931 with the invasion of Manchuria. The following year, Japan set up this area as a puppet state, "Manchukuo," under Emperor Henry Pu-Yi, last of China's Manchu dynasty. From then on Japanese policy was attuned to the saber rattling of her militarists. On Nov. 25, 1936, Japan joined the Axis by signing the anti-Comintern pact. The invasion of China came the next year, and the Pearl Harbor attack was unleashed on Dec. 7, 1941.

For many months after Pearl Harbor, the Japanese Army and Navy enjoyed spectacular success, but by the end of 1942 the tide had begun to turn. Three years later the dropping of the world's first atomic bomb in combat on Hiroshima, followed by a second one on Nagasaki, knocked Japan swiftly into a surrender that already had become inevitable.

The formal surrender took place Sept. 2, 1945, aboard the battleship *Missouri* in Tokyo Bay. Southern Sakhalin and the Kurile Islands reverted to Russia, and Formosa (Taiwan) and Manchuria to China. The Pacific islands remained under U. S. occupation.

Soon after the surrender Japan began the process of democratizing its political, social and economic structure under Allied supervision. Early in 1946 the Supreme Allied Commander, General of the Army Douglas MacArthur, ordered Baron Shidehara's cabinet to carry out a series of political purges. Elections held on April 10, 1946 brought 72.1% of the electorate to the polls, and resulted in a conservative victory. A Liberal, Shigeru Yoshida, took over the premiership on May 22, but his conservative policies brought both Allied and internal dissatisfaction.

Following the Socialists' victory in the elections of April 20, 1947, Japan's first Socialist premier, Tetsu Katayama, a lifelong Christian, formed a cabinet composed of Socialists, Democrats and members of the People's Cooperative party on May 31, 1947. In July, 1947, the U. S. proposed an early conference of the eleven members of the Far Eastern Commission to consider a peace settlement for Japan. The proposal was accepted by all the member nations except the U.S.S.R., which insisted that the treaty be drafted by the four-power Council of Foreign Ministers (China replacing France), thus following the precedent set by the Italian and Axis satellite treaties.

Dissension between the left and right wings of his party forced Katayama's resignation on Feb. 10, 1948. He was succeeded by Hitoshi Ashida, a Democrat leader, on Feb. 21. Ashida yielded to Shigeru Yoshida on Oct. 14, 1948. The latter was renamed premier Feb. 11, 1949, after his Liberal party won an absolute majority in the January, 1949, elections.

Pres. Truman removed Gen. MacArthur from his post as Supreme Commander for the Allied Powers on April 11, 1951, and named Gen. Matthew B. Ridgway in his place.

On Sept. 8, 1951, a treaty of peace with Japan was signed at San Francisco by the U. S. and 47 other nations. The U.S.S.R., Czechoslovakia and Poland were present at the conference but did not sign the treaty, which is effective upon ratification by the U. S. and a majority of the 9 other signers most immediately concerned.

ALLIED OCCUPATION GOVERNMENT. General MacArthur was appointed Supreme Commander for the Allied Powers (SCAP) on Aug. 14, 1945. The surrender terms provided that Japan must accept the provisions of the Potsdam Declaration (July 26, 1945) and that "the authority of the Emperor and the Japanese Government to rule the state shall be subject to SCAP, who shall take such steps as he deems proper to effectuate the surrender."

The Far Eastern Commission—with Australian, Burmese, Canadian, Chinese, British, French, Indian, Dutch, New Zealand, Pakistani, Philippine, Soviet and U. S. delegates—was empowered to form the policies, principles and standards by which the fulfillment of Japanese obligations under the surrender terms might be accomplished, and to review directives issued to SCAP or any action taken by SCAP within the purview of the Commission's jurisdiction. The Allied Council for Japan—composed of

SCAP (the U. S. member), a Chinese and a Soviet member and a member representing jointly the United Kingdom, Australia, New Zealand and India—advised and consulted with SCAP in carrying out the surrender terms and policies approved by the Commission.

RULER. Emperor Hirohito, born April 29, 1901, succeeded his father, Yoshihito, on Dec. 25, 1926. He was married on Jan. 26, 1924, to Princess Nagako, born in 1903. To them were born two sons, Crown Prince Akihito (Dec. 23, 1933) and Prince Masahito (Nov. 28, 1935), and 5 daughters. Succession is in the male line only.

NATIONAL GOVERNMENT. The new constitution, effective May 3, 1947, made drastic changes in Japan's political system. The Emperor retains only ceremonial functions, and executive power is vested in the cabinet, headed by the premier and collectively responsible to the Diet. Lawmaking power is vested solely in the Diet, composed of two houses—the House of Representatives, popularly elected for four-year terms, and the House of Councillors, with 250 members elected for six-year terms. A bill of rights guarantees certain basic liberties. Women are enfranchised for the first time. Sovereignty, formerly vested in the Emperor, now is vested in the people, and the House of Representatives can override the veto of the House of Councillors by a two-thirds vote.

The elections of January, 1949, distributed the 466 seats in the House of Representatives as follows (1947 standing in parentheses): Democratic Liberal, 264 (133); Democrat, 68 (126); Socialist, 49 (143); Communist, 35 (4); People's Cooperative party, 14 (31); others, 36 (29).

DEFENSE. The War, Navy, and Munitions Ministries and the Army and Navy General Staffs were abolished, and the army and navy were completely demobilized. The few remaining major ships in the navy were sunk, and the smaller ships divided among the Allies. The peace treaty of 1951, however, placed no limitation on the right of Japan to rearm.

EDUCATION. Article 26 of the 1947 Constitution provides that "all people shall have the right to receive an equal education correspondent to their ability," and that education shall be free and compulsory as provided by law. A 1947 law provided a simplified school structure with 6 years of elementary education (compulsory), 3 of lower secondary, 3 of upper secondary and 4 of university education. Under U. S. supervision the school curriculum has been simplified and purged of militaristic and chauvinistic influences. In 1946–47, Japan had 20,263 elementary schools with 10,546,742 pupils, 29,614 secondary and continuation schools with 7,116,055 pupils, 503 colleges and normal and "higher" schools with 385,173 students, and 49 universities with 91,728 students. Teacher shortage was estimated at more than 100,000 in 1948–49.

POPULATION. The population of Japan proper was approximately doubled from 1870 to 1935. The home islands are now more overcrowded than ever. As of Mar. 1, 1948, SCAP reported that 5,841,699 Japanese civilians and military personnel had been repatriated from all areas. About 95,000 were repatriated from Soviet areas in 1949; Japanese records showed 376,929 still to be repatriated, although the U.S.S.R. claimed repatriation completed.

AGRICULTURE. Japan is a land of small rice and silk farms and, except in Hokkaido, the northernmost island, there is almost no large-scale farming and animal husbandry. The average holding is less than three acres. Double cropping makes self-sufficiency possible, but on a very low level of subsistence. Crop production, although hampered by fertilizer shortages, has reached prewar levels, but increased population has caused food deficits.

Japan is the world's largest producer of natural silk. The acreage planted in mulberry trees was sharply reduced during the war with a resultant drop in cocoon and silk production. In 1950, raw silk production was only 9,000 metric tons.

Major crops (thousands of metric tons):

Crop	1948	1949	1950*
Rice (rough)	11,992	12,224	11,700
Barley	1,569	1,998	1,952
Wheat	1,041	1,297	1,335
Potatoes	2,146	2,352	2,390

* Preliminary.

INDUSTRY. Prewar Japan was one of the world's leading industrial nations and the only country in the Far East with highly developed textile, steel, machinery, chemical and electrical industries. The textile industry was dominant, but after 1931 considerable expansion took place in the heavy industries—metal, machinery-building and chemical—which were adaptable to war purposes.

Postwar industrial rehabilitation has proceeded slowly, retarded by labor troubles and deterioration of equipment; the manufacturing index stood at 90% of the 1937 level in April 1951.

INDUSTRIAL PRODUCTION
(monthly average, thousands metric tons)

	1948	1949	1950
Pig iron and ferroalloys	70	134	192
Steel ingots and castings	143	259	372
Cotton yarn	10.2	13.1	19.9
Cotton fabrics	64.4*	68.6*	107.4*
Cement	154	273	372

* Millions of square meters.

Directives issued in 1945 effected the dissolution of the huge interlocking monopolies (*Zaibatsu*) in business and finance. Voting rights in the 80 major holding companies and 3,500 subsidiaries were taken over by a government commission which also seized securities held by members of *Zaibatsu* families, for resale to the public.

In 1946, Government-owned arms plants and naval yards and 505 of the largest industrial plants were seized for distribution as reparations in line with the Allied policy of reducing Japan's industrial potential. However, the Allies were unable to agree on the allocation of reparations shares to claimant nations. Limited deliveries were made under an interim program in 1948, but on May 12, 1949, the U. S. announced its opposition to further reparations because they would prevent Japan's recovery to the point of self-sufficiency.

TRADE. Before World War II, Japan ranked fifth in world trade. Private trade was resumed in Sept., 1947. Recent data are as follows (in millions of U. S. dollars):

	1948	1949	1950
Exports	258.3	509.7	820.1
Imports	683.1	904.6	959.0

Leading customers in 1950 were the U. S. (22%) and China, Pakistan and Hong Kong (each 7%); leading suppliers, the U. S. (44%), China (8%) and India (2%). Leading exports in 1949 were cotton fabrics (37%), raw silk and silk fabrics (7%) and artificial fibers and manufactures (6%). Important imports are foodstuffs, raw cotton and other textile fibers, and fertilizers.

COMMUNICATIONS. On Dec. 31, 1939, Japan had 4,084 ships of more than 100 tons, with an aggregate tonnage of 5,728,779. Before World War II the merchant marine carried almost 80 per cent of the foreign trade and was surpassed only by those of the U. S. and Britain. Wartime losses were enormous. On June 30, 1949, there were 1,121 vessels (100 tons and over) with a total tonnage of 1,563,936.

Railway mileage in 1949 was 17,017. The highway system (1946) totaled 534,424 miles.

FINANCE. World War II left Japan with a staggering public debt, mounting inflation and a disorganized financial system. The 1951–52 general budget totaled 657,400,000,000 yen (1950–51: 664,500,000,000 yen). The national debt totaled 524,448,000,000 yen on March 31, 1949.

MINERALS. Japan is relatively poor in minerals. Crude oil production in 1950 in Japan proper was 2,100,000 barrels, about one-third of current domestic requirements. With coal production estimated at 38,461,000 metric tons, the nation was still confronted with a fuel shortage. Other minerals include lead, silver, gold and copper.

FORESTS. Japan is well-wooded, with about 60,000,000 acres of forest. Among forest products are bamboo, charcoal and timber. The wood pulp industry of Japan proper reached an output of 845,000 tons in 1941. Production in 1948 was 451,432 short tons; that of paper was 472,567 short tons. In 1949, 5,010,000,000 bd. ft. of logs and 3,880,000,000 bd. ft. of lumber were produced.

FISHERIES. Fishing, one of Japan's biggest industries, provides a staple food and considerable exports in normal years. The prewar fishing fleet of 356,462 vessels ranged from Alaska to the South Seas. The 1949 catch was 2,980,000 metric tons.

TOPOGRAPHY. Japan's four main islands are Honshu, Hokkaido, Kyushu and Shikoku. The Ryukyu chain to the southwest is U. S. occupied and the Kuriles to the northeast are Russian occupied. The surface of the main islands consists largely of mountains separated by narrow valleys. There are about 50 more or less active volcanoes, including famous Fujiyama near Tokyo (12,385 ft.). Earthquakes are frequent. Japan has many rivers, broken by shallows and rapids, and navigable usually for flat-bottomed boats.

CLIMATE. The Japanese climate ranges from subtropical in its southern extremes, to winter cold and snow in Hokkaido. The winter temperatures are moderated in the central islands by the Japan Current. Mean annual temperature in Tokyo is 56°.

Jordan (Hashemite Kingdom of)

Area (est.): 39,460 sq. mi.*
Population (est. 1951): 1,400,000.*
Density per square mile: 35.4.*
King: Talal.
Prime Minister: Abdul Huda Pasha.
Principal cities (est.): Jerusalem (Jordani), 75,000 (religious center); Amman, 60,000 (capital).
Monetary unit: Jordani dinar.
Language: Arabic.
Religions†: Moslem (Sunni), except about 30,000 native Christians and 7,000 Circassians.

* Including Arab Palestine (area: c. 2,350 sq. mi.; population: c. 1,000,000).
† Excluding Arab Palestine.

HISTORY. Jordan, once the Lordship of Oultre-Jourdain in the Latin Kingdom of Jerusalem, attracted world-wide attention in 1948 when its king, Abdullah, led Arab forces in the invasion of Palestine from the east. An ancient land, about the size of Indiana, the small kingdom was known in the time of Moses as Edom and Moab.

It passed to the Amorites of Damascus and in A.D. 106 became part of the Roman province of Arabia. In 633–36 it was conquered by the Arabs, and a period of decline and depopulation ensued.

Conquered by the British in World War I, Jordan was separated from the Palestine mandate in 1920, and placed in 1921 under the rule of Abdullah ibn Hussein. In 1923 Britain recognized Jordan's independence, subject to the mandate. During World War II, Jordan co-operated completely with Britain. On March 22, 1946, Britain abolished the mandate and recognized the full and complete independence of Jordan. That part of Palestine occupied by Jordani troops was formally incorporated by action of the Jordani parliament on Apr. 24, 1950.

King Abdullah was assassinated by an Arab fanatic in Jordani Jerusalem on June 20, 1951. His elder son, Talal, born in 1909, took the oath of office as king on Sept. 6.

GOVERNMENT AND DEFENSE. Jordan is a constitutional monarchy. The regent rules with the aid of a cabinet of department heads responsible to him. The parliament consists of the popularly elected chamber of deputies of 40 members and the senate of 20 appointed members. Arab Palestine is represented in both bodies.

Defense of the country is entrusted to the British-trained Arab Legion of about 15,000 men, the most effective force among all Arab armies. The Anglo-Trans-Jordanian treaty of March 20, 1948, replacing that of March 22, 1946, has mutual assistance provisions and permits Britain to maintain air force units. Jordan receives an annual defense subsidy of £3,000,000 from Britain.

SOCIAL AND ECONOMIC CONDITIONS. Life in Jordan is primitive; there are estimated to be 50,000 nomads and 120,000 seminomads. At least 95 per cent of the total area is deserted. Illiteracy is widespread; in 1948 the 175 schools (excluding Arab Palestine) had 15,201 pupils.

Most of the country is suitable only for pasturing sheep, goats and camels. Cultivated land is limited to a relatively small area west of the Hejaz Railway. In the drier cultivated areas of the plateau, the inhabitants retain tribal organization and still live in tents. Foreign trade is limited to the exchange of wheat, fresh fruit, wool and live animals for sugar, tea, and other necessities. Exports and re-exports in 1950 were 4,800,000 dinars; imports, 10,800,000 dinars.

Despite the sparse settlement of the country, Jordan has good roads to Israel, Syria and Iraq. It is crossed from north to south by the Hejaz Railway.

The 1950–51 budget (excluding subsidies) was balanced at 2,344,000 dinars.

TOPOGRAPHY AND CLIMATE. Jordan is mainly a plateau with an average altitude of 3,000 feet, sloping gently eastward. The western edge is a steep slope overlooking the Rift Valley (Jordan River, Dead Sea and Wadi el Araba) 3,000–4,000 feet below. In the south are mountains over 5,000 feet high and a sandstone area cut by deep canyons. Jordani Palestine is largely a hilly plateau. Jordan borders on the Red Sea for a few miles in the southwest. The subtropical steppe and desert have wet cold winters and dry hot summers. Rainfall near the escarpment decreases from about 26 inches in the north to 10 inches in the south. Average maximum temperature in August is 92°; average minimum in January is 39°.

Korea (Chosen)

Area: 85,225 square miles.
Population (est. 1949): 29,238,641 (almost entirely Korean).
Density per square mile: 343.1.
President: Dr. Syngman Rhee.
Premier: John M. Chang.
Principal cities (est. 1949): Seoul (Kyongsong), 1,446,049 (capital); Fusan (Pusan), 473,619 (chief seaport); Pyongyang, 450,000 (northern industrial center); Taegu, 313,705 (silk center); Inchon, 265,767 (seaport).
Monetary unit: Won.
Languages: Korean, Chinese, Japanese.
Religions: Buddhist, Confucianist, Taoist, Christian (500,300 Christians in 1938).

HISTORY. Korea, a peninsula about 600 miles long extending out from Asia between the Yellow Sea and the Sea of Japan, became an international battleground in 1950 when Communist troops of North Korea invaded the U. N.-recognized Republic of South Korea below the 38th parallel.

According to legend which may be partly historical, a Chinese sage named Kija founded the kingdom of Chosun ("Morning Calm") in 1122 B.C. and thus began a dynasty which lasted until 193 B.C. In 108 B.C. Korea was annexed to China, and later divided into three small principalities which formed the kingdom of Silla. Silla revolted in A.D. 918 and declared its independence. In 1592 the Koreans defeated a Japanese fleet and, with Chinese help, ousted the Japanese invaders from their land. In 1627, the Manchus seized Korea and placed it again under Chinese sovereignty. In the Chinese-Japanese War of 1894–95, Japan won predominant influence in Korea, and in 1905 reduced it to a protectorate. In 1910 Japan formally annexed Korea. A Korean bid for independence was crushed ruthlessly in 1919.

In Aug., 1945, at the end of World War II, Korea was occupied by Soviet and U. S. troops. The United States, United Kingdom and Soviet Union agreed at Moscow in Dec., 1945, that Korea should be placed under the trusteeship of those three powers and China for a period not to exceed five years and that, as the first step toward Korean independence, the U. S. and Soviet commanders should meet as soon as possible to agree upon the formation of an all-Korean provisional government. Agreement proved to be impossible. The U. S. referred the matter to the U. N. General Assembly, which set up a commission in November, 1947, to arrange for Korean elections and to aid in the formation of a government. The U.S.S.R. boycotted the commission's meetings, but elections were held for a national assembly in the U. S. zone on May 10, 1948, with seats left vacant for Soviet zone delegates. The assembly met for the first time on May 31, and on July 12 adopted a constitution setting up a one-house National Assembly with a government headed by a president. On July 20 Dr. Syngman Rhee was elected president by the Assembly, and on Aug. 12 the new Republic was recognized by the U. S. and China. It was also recognized as the legal government of Korea by the U. N. General Assembly on Dec. 12, 1948. Funds were made available to the new state under the ECA program.

On May 1, 1948, formation of a North Korean "People's Republic" in the Soviet zone north of the 38th parallel was announced. It claimed jurisdiction over all Korea and was a typical Soviet state under a constitution adopted Sept. 2, 1948, by a "People's Assembly." Soviet forces were withdrawn from north Korea late in 1948; at Korean request some U. S. forces remained in the south until June, 1949.

On June 25, 1950, South Korea was attacked by North Korean Communist forces. U. S. armed intervention was ordered on June 27 by Pres. Truman and on the same day the U. N. invoked military sanctions against North Korea. Gen. Douglas MacArthur was named commander of U. N. forces on July 7. U. S. and South Korean troops fought a heroic holding action, but by the first week of August, they had been forced back to a 4,000 sq. mi. beachhead in southeast Korea. There they stood off superior north Korean forces until Sept. 15, when a major U. N. amphibious attack was launched far behind the Communist lines at Inchon, port of Seoul. By Sept. 30, U. N. forces were in complete control of South Korea; they then invaded North Korea and were nearing the Manchurian and Siberian borders when several hundred thousand Chinese Communist troops entered the conflict in late October. U. N. forces then retreated successfully below the 38th parallel where in succeeding months they repulsed several major attacks. On May 24, 1951, they recrossed the parallel and had made important new inroads into North Korea when truce negotiations began on July 10.

The negotiations, which were held at Kaesong, resulted in an impasse over Communist demands that the truce line be set at the 38th parallel, rather than at the line held by U. N. troops. Negotiations were broken off on Aug. 23 by the Communists because U. N. forces had allegedly violated the truce area.

SOCIAL AND ECONOMIC CONDITIONS. In 1947, there were 2,177,980 pupils in elementary schools, 158,325 in secondary schools, and 13,417 in higher schools. Less than half the population of school age (6 to 12) was in school at the beginning of 1950. There is a university at Seoul.

The Korean population is more or less homogeneous and successfully withstood Japanese efforts to assimilate it. South Korea has 43 per cent of the peninsula's area and over two-thirds of its population.

Korea, predominantly agricultural, cultivates about 12,000,000 acres. Chief products are rice, barley, oats, rye, millet, soybeans, tobacco, cotton and wheat. The 1949 rice crop in South Korea was about 2,956,000 tons. The political division of Korea destroyed its former self-supporting economy.

Industrial development was speeded in the last years of Japanese rule. The leading industries by value of output ordinarily are chemical, textile, food, beverage and tobacco. Korea north of the 38th parallel has by far the larger portion of the country's industry and abundant hydroelectric resources.

Korea's prewar foreign trade was closely linked with that of Japan. South Korea's postwar trade has been largely on a government-to-government basis, with most of the imports financed by U. S. funds. Such trade in 1948 included $179,593,000 in imports and only $8,865,000 in exports. Imports were principally foodstuffs, fertilizers, petroleum, coal and machinery. Exports consisted largely of tungsten ores and concentrates, graphite, marine products and ginseng.

Land communications, well developed by the Japanese for strategic reasons, included (1944) 3,115 miles of railway and (1940) 17,011 miles of highway.

The 1950–51 budget for South Korea estimated revenue at 50,800,000,000 won and expenditure at 89,200,000,000 won, with most of the deficit to be covered by U. S. aid. The 1950–51 budget for North Korea estimated revenue at 25,200,000,000 won and expenditure at 26,700,000,000 won.

Korea's best mining regions are in the north. Leading products are coal, gold, silver, copper, tungsten ore, iron ore, graphite, lead, alum stone and pyrite ore.

Despite Japanese exploitation, considerable Korean forest areas remain, especially in the north. Most of the fishing companies were Japanese-owned before 1945.

TOPOGRAPHY AND CLIMATE. Korea's coast, with a rugged mountain range along the east, is fringed with more than a thousand islands. Several rivers are navigable for more than a hundred miles, including the Rakuto in the south, the Kan in the central region and the Yalu in the northwest, on the Manchurian border. The climate is about like that of the midwestern United States, except for a heavy rainy season in July and August. Annual rainfall is about forty inches.

Latvia

Area: 25,395 square miles.
Population (est. 1940): 1,994,506 (Lettish, 75.5%; Russian, 12%; German, 3.2%; Polish, 2.5%; others, 6.8%).
Density per square mile: 78.5.
Principal cities (est. 1939): Riga, 393,211 (capital); (est. 1935): Liepaja, 57,098 (seaport).
Language: Latvian.
Religions (census 1930): Lutheran, 56.6%; Roman Catholic, 23.7%; Greek Orthodox, 8.9%; others, 10.8%.

Descended from ancient Aryan stock, the Latvians were early tribesmen who settled along the Baltic Sea and, lacking a central government, fell an easy prey to more powerful peoples. The German Teutonic Knights first conquered them in 1158 and ruled the area as two states—Livonia and Courland. Poland conquered the territory in 1562 and ruled until 1795 in Courland; control of Livonia was disputed between Sweden and Poland from 1562 to 1629. Sweden controlled Livonia from 1629 to 1721. Russia took over Livonia in the latter year, and Courland after the third partition of Poland in 1795. From that time until 1918, the Latvians remained Russian subjects, although they preserved their language, customs and folklore. The Russian Revolution of 1917 gave them their opportunity for freedom, and the Latvian Republic was proclaimed on Nov. 18, 1918.

The republic lasted little more than 20 years. It was occupied by Russian troops in 1939 and incorporated into the U.S.S.R. in 1940. German armies occupied the nation from 1941 to 1943–44, when they were driven out by the Russians. Most countries, including the U. S., have refused to recognize the Soviet annexation of Latvia.

Lebanon (Republic)

Area: 3,475 square miles.
Population (est. Dec. 31, 1950): 1,267,574 (Arabian, Armenian, Circassian, Turk).
Density per square mile: 364.8.
President: Sheik Bishara el Khoury.
Prime Minister: Abdullah Yafi.
Principal cities (est. 1949): Beirut, 400,000 (capital, chief port); Tripoli, 100,000 (oil pipe-line terminus).
Monetary unit: Lebanese pound (£L).
Languages: Arabic, French.
Religions: Maronite, Greek Orthodox, Greek Catholic, Mohammedan.

HISTORY. Smaller than Connecticut, Lebanon lies at the eastern end of the Mediterranean, between Israel and Syria. In ancient times it was the mountainous hinterland of the Phoenician coast towns. From the 7th to the 11th centuries there infiltrated into southern Lebanon the heretics of Islam who finally coalesced into the Druse community.

In the 19th century the Turkish Sultanate encouraged the Druses to wage civil war against the Christian Maronites. After a massacre of 2,500 Christians in 1860, Lebanon was occupied by the French for a year. From 1864 to 1914, a Christian military government ruled the area under nominal Turkish sovereignty. After World War I, France received a League of Nations mandate over Syria and Lebanon. The French drew a Lebanese border in 1920 to offset predominantly Moslem Syria and proclaimed the area a republic under French control on May 23, 1926.

Vichy forces controlled Lebanon after the fall of France in 1940, but the Allies replaced them by July 14, 1941. Despite Syrian objections, the French permitted Lebanon to declare its complete independence on Nov. 26, 1941. Lebanon joined the Arab League and took part in the invasion of Palestine on May 15, 1948.

GOVERNMENT. The modern Lebanese republic is governed by a president elected by parliament, for a six-year term, and a cabinet of ministers appointed by the president, but responsible to parliament, which has 55 members. An independent army has been formed, based on a cadre of native *troupes spéciales*, formerly part of the French army in the Levant. The last French troops were evacuated late in 1946.

SOCIAL AND ECONOMIC CONDITIONS. In 1949, there were 188,702 students attending 1,821 state, Moslem, Christian, private, French, American and British schools. Beirut has two universities. Christians are in the majority in Lebanon.

Lebanon produces tobacco, olives, grapes and other fruits, wheat and silk. Manufacturing is confined mainly to local consumers' goods. The silk industry is important in Beirut and Tripoli; cocoon production averages about 6,000 tons annually. To-

bacco manufacturing is a government monopoly. An oil refinery was opened at Tripoli in 1950.

The customs union with Syria was dissolved in March, 1950. In the period April 1–Dec. 31, 1950, exports totaled £L67,000,000; imports, £L245,000,000. Leading customers were Syria (33%), Egypt (7%) and the U. S. (6%); leading suppliers, France (22%), Syria (17%) and the U. S. (10%). Exports included wool, fruits, vegetables and tobacco.

A rail line links Beirut with Damascus and Syria. Another, built in World War II by Allied engineers, runs from Tripoli to the Israeli border, and is part of a line from Cairo to Istanbul, via Haifa. One of the oil pipelines from the Kirkuk field in Iraq terminates in Tripoli.

The 1951 budget balanced revenue and expenditure at £L89,450,000. There is no public debt.

Iron ore deposits are worked in the south, and building stone and marble are plentiful. The country also has thick deposits of inferior lignite coal.

TOPOGRAPHY AND CLIMATE. The topography is varied. There is a narrow coastal plain, and the steep Lebanon Mountains reach heights of approximately 10,000 feet. There are no large streams. Lebanon has hot dry summers (about 80° in Beirut) and cool rainy winters (50°–60° in January).

Liberia (Republic)

Area: c.43,000 square miles.
Population (est. 1949): 1,600,000 (Native Negro, 99%; American Negro, .8%; white, .1%; others, .1%).
Density per square mile: c.37.2.
President: William V. S. Tubman.
Principal city: Monrovia (est. pop. 10,000; capital and chief port).
Monetary unit: U. S. dollar.
Languages: English (official), native tongues.
Religion: Protestant Christian (official); Mohammedan, Catholic, Pagan.

HISTORY. The history of Liberia, Africa's only republic, dates from 1816, when the American Colonization Society received a charter from the U. S. Congress, authorizing it to send emancipated Negro slaves to the west African coast.

The first settlers, who were led by Jehudi Ashmun, landed in 1822 at Cape Mesurado near the present site of Monrovia. White governors, named by the society, administered Liberia until 1841. On July 26, 1847, independence was proclaimed, and the first president was Joseph J. Roberts, a Virginia octoroon of considerable ability.

After 1920 considerable progress was made toward opening Liberia's interior, but even today only about 100,000 of its inhabitants are regarded as civilized, and lack of transportation hampers development of the heavily forested inland. In 1942, a U. S.–Liberian agreement admitted U. S. troops to build strategic airports.

In 1944 an agreement provided for permanent U. S. military and naval bases.

GOVERNMENT. The government is modeled after that of the United States. The president and vice president are popularly elected for eight years. The 27-member House of Representatives is elected for four years and the ten-member Senate for six years. Suffrage is extended only to landowners over 21 who are of Negro blood, but a 1946 constitutional amendment provides for the seating in the House of an aborigine from each province in the hinterland. Liberia's army of about 4,000 men is organized on a militia basis.

SOCIAL AND ECONOMIC CONDITIONS. Education, compulsory in theory, is conducted in 200 schools, about half state and half mission. Attendance is about 16,000. There are six state high schools, a normal school, a state college and the Booker T. Washington Industrial and Agricultural Institute, supported by U. S. donations.

The English-speaking descendants of U. S. Negroes, known as Americo-Liberians, are the intellectual and ruling class. The aborigines, virtually all uncivilized, are divided into some 28 tribes speaking different dialects. Some are Moslems or pagans. Christians include Anglicans, Methodists, Catholics, Baptists and Presbyterians. There are a number of foreign missions.

Agriculture, on a crude level, is the principal means of livelihood for the tribal Liberians, who raise coffee, rice, sugar cane and cassava. Manufacturing is non-existent except for small native industry, and the country's only big enterprise is the million-acre concession granted in 1925 to the Firestone Plantations Company for rubber cultivation. Production averages 22,000 tons annually. A large iron-ore concession has been developed in the Bomi Hills area by Republic Steel Corp.; the first shipment left Monrovia in June, 1951.

Most of the trade is with the United States. Domestic exports in 1949 totaled $15,412,115, of which 79 per cent was rubber, 15 per cent palm kernels and oil, and 3 per cent gold. Imports were $11,821,606, mostly textiles, machinery, vehicles, petroleum and food. The U. S. supplied 71 per cent of the imports and took 82 per cent of the exports.

Liberia's first railroad, a 43-mile narrow-gauge line from Monrovia to the Bomi Hills iron-ore concession, began operation in 1951. Coastwise and international air service is supplied by Pan American Airways. Interior travel is still largely by foot

with native bearers, but important progress in road construction was made during and after World War II. There are no harbors except a port and naval base completed in 1947 at Monrovia, with U. S. assistance, at a cost of more than $19,000,000.

Finances are under U. S. supervision. The country's recent fiscal record is excellent. Actual revenue in 1949 was $3,815,834; expenditure, $3,547,470. The external debt on Dec. 31, 1949, was only $566,000; the internal debt, $4,700.

TOPOGRAPHY AND CLIMATE. Liberia, about the size of Ohio, has a 350-mile frontage on the west coast of Africa, between the Ivory Coast and Sierra Leone. Its only well developed area is a low coastal strip running inland about seven miles. Beyond that is a low plateau, some of it mountainous, traversed by many rivers, of which the Cavalla (Kavalli) and the St. Paul's are the most important. The climate is tropical throughout, with rainfall up to 150 inches a year on the coast.

Liechtenstein (Principality)

Area: 65 square miles.
Population (est. 1948): 13,000 (mostly German).
Density per square mile: 200.0.
Ruler: Prince Franz Joseph II.
Chief of Government: Alexander Frick.
Principal city (est. 1948): Vaduz, 2,650 (capital).
Monetary unit: Swiss franc.
Language: German.
Religion: Roman Catholic.

Tiny Liechtenstein lies on the east bank of the Rhine, just south of Lake Constance, between Austria and Switzerland. It abolished its army in 1868 and has managed to stay neutral and undamaged in all European wars since that date.

Founded in 1719, Liechtenstein was made up of the Lordships of Vaduz and Schellenburg, immediate fiefs of the Holy Roman Empire. In 1806 it joined the Rhine Federation and in 1815 the German Confederation. It became independent in 1866. Franz Joseph II, the reigning prince, was born in 1906, and succeeded his great uncle, Franz I, in 1938. In 1943 he married Countess Gina Wilczek, of Austria.

The constitution of 1921 provided for a legislature, the *Landtag*, of 15 members elected by direct, universal suffrage. Liechtenstein adopted Swiss currency in 1921, and has been part of the Swiss Customs Union since 1924. Its foreign trade statistics are included in those of Switzerland, which also administers the country's telegraph and postal service.

Wheat, wine and fruit are the chief products. There are small manufactures of cotton, leather and pottery. The country's taxes are quite painless. For many years it had no debt, but at the beginning of 1950, the debt was 6,516,878 fr. Revenue in 1950 was estimated at 4,451,200 fr.; expenditures, at 4,775,949 fr. In 1949, there were 15 elementary and secondary schools, with total enrollment of 1,744.

Liechtenstein's area includes low valley land and upland peaks—Falkais at 8,401 feet, and Naafkopf, 8,432 feet. The chief mineral product is marble.

Lithuania

Area: 22,958 square miles.
Population (est. 1940): 2,879,070 (Lithuanian, 81%; German, 4%; Polish, 3%; Russian, 2%; others, 10%).
Density per square mile: 125.4.
Principal cities (est. 1942): Vilnius (Vilna), 182,000 (capital); (est. 1941) Kaunas, 120,000 (river port).
Language: Lithuanian.
Religions: Roman Catholic, 80%; Lutheran, 5.5%; others, 14.5%.

Southernmost of the three Baltic states, Lithuania in the middle ages was a grand duchy joined to Poland through royal marriage. Poles and Lithuanians merged forces to defeat the Teutonic Knights of Germany at Tannenberg in 1410 and extended their power far into Russian territory. In 1795, however, following the third partition of Poland, Lithuania fell into Russian hands and did not gain its independence until 1918, toward the end of World War I.

The republic was occupied by the U.S.S.R. in 1939 and annexed outright the following year. From 1940 to 1944 it was occupied by German troops and then was retaken by the Soviet Union. Western countries, including the U. S., have not recognized the Russian annexation.

Luxemburg (Grand Duchy)

Area: 999 square miles.
Population (est. Dec. 31, 1950): 298,578 (Luxemburgian, French, German).
Density per square mile: 298.9.
Ruler: Grand Duchess Charlotte.
Premier: Pierre Dupong.
Principal city (census 1947): Luxemburg, 61,590* (capital; iron and steel).
Monetary unit: Luxemburg franc.
Languages: Luxemburgian, French, German.
Religion: Mainly Roman Catholic.
* Population actually present at time of census.

HISTORY. Luxemburg is a small buffer state between France, Germany and Belgium. Invaded and occupied in both World Wars I and II despite the fact that its neutrality was guaranteed, Luxemburg suf-

fered most in the latter war, when the Nazis deported several thousand natives as slave labor.

Sigefroi, Count of Ardennes, an offspring of Charlemagne, was Luxemburg's first sovereign ruler. In 1060 the country came under the rule of the House of Luxemburg. From the 15th to the 18th centuries, Spain and Austria held it in turn. The Congress of Vienna in 1815 made it a Grand Duchy and gave it to William I, King of the Netherlands. In 1839 the Treaty of London ceded the western part of Luxemburg to Belgium.

After the Nazi invasion on May 10, 1940, the government fled the country, returning in 1944 after Allied troops had liberated it. A claim for 225 square miles of German territory was made in 1946. In 1948 the grand duchy abandoned its policy of perpetual unarmed neutrality and joined the Western European Union; in April, 1949, it adhered to the North Atlantic Pact.

GOVERNMENT. Luxemburg is a constitutional monarchy with the crown hereditary in the House of Nassau. The sovereign, Grand Duchess Charlotte, was born Jan. 23, 1896. The heir to the throne is Prince Jean, born Jan. 5, 1921.

The constitution of 1868, as amended in 1919, provides for democratic government through a chamber of deputies of 51 members, popularly elected for six-year terms. The constitution leaves to the sovereign the right to organize the government, which consists of a minister of state who is president of the government (premier) and at least 3 other ministers. There is also a council of state of 15 members, chosen for life by the sovereign.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory for all children between the ages of 6 and 13. The common or idiomatic language is *letzeburgesch;* German and French are also spoken. Labor unions are strongly organized into a single large federation.

Although the soil is not very fertile, agriculture is prosperous. Principal crops are potatoes, oats, wheat, rye and grapes. Wine production, 1950, was 3,400,000 U. S. gal.

The mining and metallurgical industries, based on iron ore found in the south, are the most important. In 1950, an average of 23 blast furnaces employed 18,140 workers and produced 2,498,884 metric tons of pig iron. Production of steel ingots was 2,450,689 tons. Electrical energy produced in 1950 totaled 696,830,000 kwh. Other industries include brewing, sparkling wine, leather, textiles and cement.

Normally, Luxemburg has little unemployment, almost no illiteracy and such low taxes that many foreign holding companies maintain legal headquarters there to escape high taxation in other countries.

By a customs union between Belgium and Luxemburg which came into force on May 1, 1922, to last for 50 years, customs frontiers between the two countries were abolished. On Jan. 1, 1948, an economic union with Belgium and the Netherlands (Benelux) came into existence. Luxemburg's foreign trade figures are included in those of Belgium and no separate statistics are available; exports consist chiefly of iron and steel products.

Transportation facilities in 1947 included 340 miles of railway and 2,673 miles of highway, of which 1,320 miles were improved.

The 1951 budget forecast revenue at 3,431,000,000 fr. and expenditure at 3,385,000,000 fr. The consolidated debt on Dec. 31, 1950, was 2,655,000,000 fr.; the floating debt, 4,608,600,000 fr.

Luxemburg's prosperity depends largely on its rich iron ore mines, which produced 3,845,096 metric tons in 1950; exports were 814,424 tons.

Mexico (Republic)
(Estados Unidos Mexicanos)

Area: 758,061 square miles.
Population (census 1950*): 25,367,802 (mestizo, 55%; Indian, 29%; white, 15%; others, 1%).
Density per square mile: 33.5.
President: Miguel Alemán.
Principal cities (census 1950*): Mexico City, 2,527,328 (capital); Monterrey, 339,634 (metallic industries); Guadalajara, 337,000 (manufacturing); Puebla, 229,676 (cotton textiles); San Luis Potosí, 156,324 (mineral smelting); Mérida, 155,899 (sisal).
Monetary unit: Peso.
Language: Spanish, 86%; Indian, 14%.
Religion: Predominantly Roman Catholic.

* Preliminary figures.

HISTORY. Mexico is four times the size of Spain, the source of its cultural heritage, and one-fourth the size of the United States, the source of its modern industrial trend. In recent times the nation has steered moderately leftward in deference to the needs of its millions of peasants.

Mexico's early history is shrouded in mystery, but at least two highly civilized races—the Mayas and later the Toltecs—preceded the wealthy Aztec empire conquered in 1519–21 by the Spanish under Hernando Cortez. Spain ruled for the next 300 years until 1810 (the date was Sept. 16 and is now celebrated as Independence Day), when the Mexicans first revolted. They continued the struggle and finally won independence in 1821 by the Treaty of Córdoba.

Turbulent years followed. From 1821 to the first presidency of Porfirio Díaz in

1877, there were two emperors, several dictators and enough presidents and provisional executives to make a new government on the average of every nine months. Mexico lost Texas (1836), and after defeat in the war with the United States (1846–48) it lost the area comprising the present states of California, Nevada and Utah, most of Arizona and New Mexico, and parts of Wyoming and Colorado.

In 1855 the Indian patriot Benito Juárez began a series of liberal reforms including the disestablishment of the Catholic Church, which had acquired vast property. A subsequent civil war was interrupted by the French invasion of Mexico (1861), the crowning of Maximilian of Austria as emperor (1864), and then his overthrow and execution by forces under Juárez, who again became president in 1867.

During the rule of the dictator Porfirio Díaz (1877–80 and 1884–1911) the country was freed from political strife, made substantial economic progress, and gained a respected position in foreign affairs. But Díaz' reactionary land policy led to revolution and his resignation in 1911. The next few years were marked by bloody political-military strife, and trouble with the United States culminating in the punitive expedition into northern Mexico (1916–17) in unsuccessful pursuit of the bandit-politician Pancho Villa. President Venustiano Carranza, who had shown pro-German sympathy in World War I, was assassinated in 1920, and was succeeded by General Alvaro Obregón.

President Plutarco Elías Calles (1924–28) largely abandoned Obregón's reforms, and Obregón, re-elected in 1928 on a radical agrarian and anti-clerical platform, was assassinated by a religious fanatic before he could take office. There followed a series of Calles puppets who ruthlessly suppressed labor and farm organizations. General Lázaro Cárdenas (1934–40), backed by the National Revolutionary Party (PRM), began a socialistic program of land distribution to peasants, government seizure of foreign-owned oil lands, and broad labor reforms. General Manuel Avila Camacho, president during World War II, co-operated closely with the United Nations and followed Cárdenas' policy at home.

In July, 1946, Miguel Alemán was elected president, backed by the Avila Camacho administration and the PRM. It was the most peaceful election in Mexican history. Alemán, like his predecessor, pursued the internal policy initiated by Cárdenas; his administration has been marked by continued cordial relations with the United States.

GOVERNMENT. The president, popularly elected for six years and ineligible to succeed himself, governs with a cabinet of his appointed ministers. The Federal Congress has two houses—the 147-member Chamber of Deputies, elected for three years (one for each 150,000 population) and the 58-member Senate, elected for six years with two senators from each of the 28 states and two from the Federal District (Mexico City). All married male citizens at least 18, and all single male citizens at least 21 are eligible to vote.

Each of the 28 states has considerable autonomy, with a popularly-elected governor, legislature and local judiciary. The president appoints the governors of the three Federal territories, and the governing body of the Federal District.

Military service is compulsory, and the president holds supreme command of the armed forces, through the Secretary of War. The national army, greatly modernized during World War II, numbered about 50,000 men in 1950; the air force had 250 planes and two U. S.-trained squadrons. The small navy consists of six sloops, about 20 coast guard vessels and other minor craft.

EDUCATION. Illiteracy is one of Mexico's big problems, and the government is trying hard to reduce the rate, estimated at 21 per cent in 1950, as against 60 per cent in 1930. Education is free, compulsory from 6 to 16, separated from the church, and under Federal control. There were about 24,625 primary schools in 1949 with an enrollment of 2,997,198. The 466 general secondary schools had 80,598 students. The 12 universities had 35,602 students; about 22,000 attended the University of Mexico at Mexico City.

RELIGION. About 90 per cent of Mexicans are Roman Catholics, but all religions are tolerated. The 1857 Constitution separated church and state. The church cannot acquire property, and its present holdings are deemed to belong to the state. Priests, who must be Mexican-born, cannot take part in politics.

GOVERNMENT CONTROL. Federal control of the national economy is increasing steadily in Mexico. The government regulates farm production, fixes prices, and controls both exports and imports. Since 1915 it has consistently broken up large estates for distribution to the poor on state-owned communal farms. In 1941, title to the land began to pass to the peasants themselves. The right to strike, maximum hours, minimum wages and a social security system—all these have been established by the government.

AGRICULTURE. Primitive agricultural methods are steadily giving way to modern practices. More than 17,000,000 acres are under cultivation. About 2,775,000 acres are irrigated, but the eventual total of

watered land is expected to be 12,000,000 acres. About 10 per cent of the annual budget is earmarked for irrigation projects. Approximately half the arable land is planted to corn—a staple item in the national diet. The Yucatán peninsula, at the southern end of the Gulf of Mexico, raises more than half of the world supply of sisal hemp (104,056 tons in 1949).

Production of principal crops was as follows in 1949 (metric tons): wheat, 503,244; sugar cane, 10,431,567; potatoes, 180,495; rice (rough), 184,640; coffee, 59,027; oranges, 411,197; tobacco, 33,822; cottonseed, 345,524; cotton, 207,690; beans, 231,121; corn (1948), 2,831,937. Sugar production totaled 685,000 tons.

Stockraising is important on non-arable land. Mexico's inventory of livestock in 1949 showed 13,217,000 cattle, 4,965,000 sheep, 2,722,000 horses, 2,636,000 asses, 1,225,000 mules and 5,704,000 hogs.

A rather serious epidemic of hoof-and-mouth disease broke out among Mexican cattle in 1947. A joint U. S.–Mexican campaign to destroy all diseased and exposed cattle led to peasant opposition amounting in some cases to insurrection, but the campaign continued.

INDUSTRY. Considering its cheap labor, abundant raw materials and available water power, Mexico is still industrially backward. However, steady expansion is taking place.

Total value of industrial production in 1948 was 3,920,817,000 pesos, of which cotton yarn and cloth accounted for 21.0 per cent; sugar, 12.4; flour, 7.7; beer, 7.5; iron and steel, 6.3; soap, 5.8; and cigars and cigarettes, 5.2. Other products were rubber manufactures, vegetable oils, paper, wool, silk and rayon yarn and cloth, cement, shoes and glass. In 1949, 358,682 tons of pig iron and 345,143 tons of steel were produced.

TRADE. Foreign trade data, in millions of pesos, are as follows:

	1948	1949	1950
Exports	2,671	3,623	4,338
Imports	2,951	3,527	4,403

Chief exports in 1950 were cotton (17%), lead (12%), coffee (8%), fresh meat and fish (7%) and silver (6%). The U. S. took 86% of the exports and supplied 84% of the imports. Other leading customers were Guatemala, Canada, the Netherlands and Britain. Leading imports included wheat, machinery, vehicles and iron and steel products.

MINERALS. Mexico is one of the richest mineral countries in the world. It outranks all other countries in silver production (1950: 49,140,302 troy oz.). Other minerals, with 1950 production, are gold, 408,092 oz.; lead, 238,078 metric tons; zinc, 223,520 tons; copper, 61,698 tons; and antimony, 5,878 tons. A considerable variety of other industrial minerals is produced. The 1950 mineral value (excluding petroleum) was 2,003,323,831 pesos. Deposits of uranium are reported to exist.

Most of the Mexican mining properties are foreign-owned, and the industry is declining in relative importance. The oilfields, lying along the east coast, were seized by the government in 1938, but later the foreign owners were indemnified. There are 15 refineries with daily capacity of 250,000 barrels. Production in 1950 was 72,443,095 barrels, the largest since 1926. Reserves are limited.

FORESTS. Mexico's forests are of considerable importance. Timber produced in 1947 amounted to 398,315,352 bd. ft. of sawed lumber, 85,171,424 bd. ft. of rough-hewn lumber and 95,382,192 bd. ft. of logs (pine, oak, fir, mahogany, red and white cedar and primavera). Resins, turpentine and vegetable wax are also produced. Yucatán produces nearly all of the world's chicle, the juice of the sapodilla tree, used as the base of chewing gum. Chicle production in 1947–48 was 2,400 tons.

COMMUNICATIONS. Mexico has about 15,000 miles of railroad; the 1947 freight total was 21,864,000 tons, of which the nationalized lines carried more than half. There were over 18,000 miles of improved highway in 1949. The merchant fleet had 59 vessels (100 tons and over) aggregating 144,233 gross tons on June 30, 1950, according to *Lloyd's Register*. Veracruz and Tampico, on the Gulf of Mexico, are the most important ports. In 1948, Mexican airlines flew 22,085,925 miles and carried 815,118 passengers.

Recent government financial data are as follows (in millions of pesos):

	1949*	1950*	1951†
Revenue	2,410.0	2,597.0	3,104.0
Expenditure	2,551.3	2,746.1	3,102.0

* Voted estimate. † Draft estimate.

The national debt amounted to 3,050,000,000 pesos on Dec. 31, 1948. The estimated national income in 1949 was $3,252,858,000.

TOPOGRAPHY. Mexico is a great, high plateau, open to the north, with mountain chains on east and west and with ocean-front lowlands lying outside of them. It has two big spears—the peninsula of Lower California which is mountainous, and the Yucatán peninsula, which is mostly a low plain. The eastern mountains are marked by high volcanoes, including Popocatepetl, 17,883 feet and not entirely extinct; Ixtaccihuatl, 17,338 feet; and the loftiest, Orizaba, 18,696 feet. None of Mex-

ico's many short streams is navigable to any major extent.

CLIMATE. Partly in the torrid and partly in the north temperate zone, Mexico has three distinct climate regions. From the coasts inland to the plateau it is tropical, with temperatures sometimes topping 100°, but averaging from 77° to 82°. The plateau is sub-tropical with an average of 75°, and the mountains, over 6,000 feet, average 60°. On the east coast the annual rainfall sometimes reaches 100 inches, while in Lower California rain hardly ever falls. Rainfall on the plateau is 20 to 40 inches a year, comparable to that of the west central United States. In Mexico City the coldest months are December and January (about 55°); the warmest, April and May (65°). The wet season is from April to September.

Monaco (Principality)

Area: .59 square mile (375 acres).
Population (est. 1948): 21,000.
Density per square mile: 35,593.2
Ruler: Prince Rainier III.
Principal cities (census 1946): Monaco, 1,854; La Condamine, 9,421; Monte Carlo, 7,967.
Monetary unit: French franc.
Language: French.
Religion: Roman Catholic.

A tiny, hilly wedge driven into the French Mediterranean coast nine miles east of Nice, Monaco is a little land of pleasure with a tourist business that runs as high as 1,500,000 visitors a year. The home of world-famous Monte Carlo, a place of benign sun and balmy air, Monaco offers golf, tennis and bathing by day, and drinking, dining and gambling by night. Residents of Monaco are forbidden to enter the gaming rooms, but they have compensations. They pay no taxes, and most of them make good livings from the thriving tourist business.

Monaco, with its beautiful terraced hills and crags, had popular gaming tables as early as 1856. Five years later, a 50-year concession to operate the games was granted to François Blanc, of Bad Homburg. This concession passed into the hands of a private company in 1898. Government expenses are paid from the resultant revenue. The concession's annual license fee since 1936 has been £100,000.

The Phoenicians, and after them the Greeks, had a temple on the Monacan headland honoring Heracles. From *Monoikos*, the Greek surname for this mythological strong man, the principality took its name. After being independent for 800 years, Monaco was annexed to France in 1793 by the French Revolutionists, and was placed under Sardinia's protection in 1815. In 1861, it went under French guardianship but kept its independence.

Prince Albert of Monaco gave the principality a constitution in 1911, creating a national council of 21 members popularly elected for four years. The government is under a ministry, acting on the prince's authority. The ruler, Prince Rainier III, born May 31, 1923, succeeded his grandfather, Louis II, on the latter's death, May 9, 1949.

Mongolian People's Republic (Outer Mongolia) (Republic)

Area: 580,158 square miles.
Population (est. 1941): 900,000 (Mongol, except for about 100,000 Russians and 50,000 Chinese).
Density per square mile: 1.55.
Chairman of Presidium: Bumatsende.
Ruler: Marshal Choy Bal-san.
Principal city: Ulan Bator Khoto (Urga), 100,000 (capital).
Monetary unit: Tugherik.
Languages: Mongolian, Russian.
Religion: Lama-Buddhism.

HISTORY AND GOVERNMENT. The Mongolian People's Republic, known also as Outer Mongolia, is a Russian satellite that measures more than twice the area of Texas. It contains the original homeland of the historic Mongols, whose power reached its zenith during the 13th century under Kublai Khan. The area accepted Manchu rule in 1689, but after the Chinese Revolution of 1911 and the fall of the Manchus in 1912, the northern Mongol princes expelled the Chinese officials and declared independence under the Khutukhtu or "Living Buddha." In 1921, Soviet troops entered the country and facilitated the establishment of a republic by Mongolian revolutionaries in 1924 after the death of the last Living Buddha. China, meanwhile, continued to claim Outer Mongolia but was unable to back the claim with any strength. Outer Mongolia significantly signed a military alliance with Russia in 1936 and a treaty of friendship in 1946.

Under the Chinese-Russian Treaty of 1945, China agreed to give up Outer Mongolia, provided that a plebiscite on independence be held first. The subsequent vote was announced as 483,291 to 0, in favor of independence. On Jan. 5, 1946, China recognized Outer Mongolia's independence.

The government of the republic is strikingly similar to the Soviet system. The Great Hural or Huruldan (parliament) is elected by universal suffrage, meets at least once in three years and picks 30 members to act as an executive committee —the Little Hural—which in turn selects a presidium of seven members as an interim body. A cabinet of ten ministers appointed by the Little Hural governs

the country. The only political party is the Mongol People's Revolutionary Party, formed in 1921 around a nucleus of young Soviet-trained Mongols. The army of several thousand is Russian-trained and equipped.

SOCIAL AND ECONOMIC CONDITIONS. A number of young Mongols are regularly sent to the U.S.S.R. for technical training. The capital, Ulan Bator Khoto, former holy city of the Mongols, has a radio station, several newspapers published in Mongolian, high schools, a university, medical schools, and a military school with Soviet advisers. In 1950, there were said to be 412 primary and secondary schools, 14 technical schools and 3 higher-education institutions in the republic. In 1947, there were 90 hospitals and 234 medical centers.

The country is largely pastoral. There are few areas suitable for crop growing, but some millet, rye and wheat are produced. Most of the people are essentially nomadic or seminomadic; flocks and herds remain the chief source of wealth. In 1941, livestock were said to number 27,500,000, including 15,900,000 sheep.

There are a few industrial enterprises, including a machinery factory, a brick factory and an electric power station all located at Ulan Bator Khoto; power plants, printing shops and automobile repair shops have also been established. All land, natural resources, factories, mines, haymaking stations and public utilities are nationalized.

Foreign trade, a state monopoly, is carried on entirely with the Soviet Union. The only available trade statistics (1936) indicated exports valued at $5,892,000 and imports valued at $9,251,000. Leading exports are livestock, wool, hides, animal hair, meat and furs.

Although the old caravan routes are still used, and transportation is mainly by horse, camel or ox carts, a number of motorable roads exists (1938: 2,477 mi.) including a highway from Ulan Bator Khoto to the Siberian border town of Kyakhta. An airline also functions between Ulan Bator Khoto and Ulan Ude in the Buryat Mongol Autonomous S.S.R. which borders Mongolia on the north. A short rail line connects Ulan Bator Khoto with the coal fields, and a spur from the Trans-Siberian runs to the capital.

Reserves of 500,000,000 tons of coal are said to exist in the Nalaikha field near Ulan Bator Khoto. Production in 1938 was 71,650 tons. Some gold is mined. Deposits of antimony, copper, iron ore, lead graphite, mercury, sulfur and silver exist.

TOPOGRAPHY AND CLIMATE. The productive regions of Outer Mongolia—a tableland ranging from 3,000 to 5,000 feet in elevation—are in the north, which is well drained by numerous rivers, including the Kerulen, Tola, Orkhon and Selenga. The climate is continental, with hot summers and cold winters. Mean temperature at Ulan Bator Khoto is 15° in January and 64° in July. Rainfall is light throughout the country, and almost negligible in the Gobi Desert in the southeast.

Morocco (Protectorate)

(Maroc)

Area: 161,691 square miles (French 153,870; Spanish 7,589; Tangier 232).
Population: French Morocco, 8,617,000 (1947); Spanish Morocco, 1,082,009 (1948); Tangier, 150,000 (1949).
Sultan: Sidi Mohammed ben Youssef.
French Resident General: Alphonse Juin.
Spanish High Commissioner: Lt. Gen. Rafael García Valino.
Administrator of Tangier: Jonkheer H. L. F. C. van Vredenburch (Netherlands).
Principal cities (est. 1947): Casablanca, 550,000 (chief seaport); Marrakech, 238,000 (trading center); Fez, 200,000 (commercial center); Rabat, 160,000 (French administrative center).
Monetary units: French franc, Spanish peseta.
Languages: Arabic, French, Spanish.
Religions: Chiefly Mohammedan.

HISTORY. Morocco, about the size of California, is just south of Spain across the Strait of Gibraltar and looks out on the Atlantic from the northwest shoulder of Africa. It was once the home of the Berbers, who helped the Arabs invade Spain in A.D. 711 and then revolted against them and gradually won control of large areas of Spain for a time after 739.

The country was ruled successively by various native dynasties and maintained regular commercial relations with Europe, even during the 17th and 18th centuries when it was the headquarters of the famous Salli pirates. In the 19th century, clashes with the French and Spanish became frequent. Finally, in 1904, France and Spain divided Morocco into zones of French and Spanish influence, and these were established as formal protectorates in 1912. In the same year a revolt at Fez was followed by the appointment of General (later Marshal) Louis Lyautey as governor general. His administration, lasting until 1925 except for a brief period during World War I, was remarkable for its efficiency and far-sighted policies.

Meanwhile, Morocco had become the object of big-power rivalry, which almost led to a European war in 1905 when Germany attempted to gain a foothold in the rich mineral country. By terms of the Algeciras Conference (1906), Morocco was internationalized economically and France's privileges were limited. War again seemed im-

minent in 1911, when Germany dispatched a warship to Agadir in an evident attempt to intimidate France. Again the dispute was settled, however, and this time Germany recognized France's right to establish a protectorate over Morocco.

The Tangier Statute, concluded by Britain, France and Spain in 1923, created an international zone at the port of Tangier, permanently neutralized and demilitarized. In World War II Spain occupied the zone, ostensibly to insure order, but was forced to withdraw in 1945, and the international rule was re-established.

The French zone in Morocco was under the Vichy government of France during part of World War II, but three days after the Allied landing in North Africa in 1942 it came under Allied control.

GOVERNMENT. Morocco nominally is an absolute monarchy under a sultan, but actually the French resident general at Rabat and the Spanish high commissioner at Tetuan direct Moroccan policies to a large extent. The sultan lives in the French zone, and delegates authority to representatives in the Spanish zone and Tangier.

Tangier is governed by an international administration and a council of control composed of the consuls general of the signatories to the Act of Algeciras.

SOCIAL AND ECONOMIC CONDITIONS. Most of the natives are illiterate; some get rudimentary education in Koranic schools or state-maintained institutions. Education is provided in both zones for Europeans.

The natives are Berbers, roughly divided by customs and way of life into three groups—the Riff group along the coast, the central or Berber group in the mid-Atlas Mountains, and the southern or Chleuh in the high Atlas and the Sus. There is a large Jewish population. Most of the Europeans live in the cities.

Morocco is essentially agricultural. In the French zone, about 25,000,000 acres are arable, with 1950 production of wheat coming to 1,150,000 metric tons; of barley, 2,216,000 tons. Corn, beans, peas, hemp, sorghum, citrus fruits and dates also are raised. Production of olives in 1948 was 76,000 tons. In 1948, 8,474,000 sheep and 1,549,000 cattle were registered.

In the Spanish zone, agriculture is largely undeveloped, but it has potential importance. In 1949, 50,280 metric tons of barley were produced; wheat, maize and sorghum crops are also important.

Manufacturing industries introduced by Europeans, mostly small, produce chemicals, flour, leather, stone, beverages and textiles. Native industries include carpet weaving and making Turkish slippers.

Exports from the French zone in 1950 totaled 65,979,300,000 fr.; imports, 114,810,000,000 fr. Chief exports are phosphate, fish, citrus fruit and vegetables. Imports include cotton cloth, sugar, vehicles and tea. Exports from the Spanish zone in 1948 totaled 206,442,000 pesetas and imports 572,422,000 pesetas. A large proportion of the trade is carried on with Spain. Major exports are iron ore, fish and grain; imports include flour, sugar, tea, wine and textiles. Tangier's exports in 1950 were 1,833,577,000 fr.; imports were 9,565,414,000 fr.

Railroads in 1948 totaled 1,990 miles in the French zone and 75 miles (standard gauge) in the Spanish zone. Highway mileage in the same year was approximately 5,700 in the French zone, about 500 in the Spanish zone and 65 in Tangier. Casablanca, which handles 80 per cent of the French zone trade, has perhaps the world's largest artificial port.

The importance of Tangier, once Morocco's first port, has declined under the international regime, and its harbor works are obsolete.

The ordinary budget for the French zone in 1951 balanced at 37,783,000,000 fr.; extraordinary expenditure was estimated at 26,200,000,000 fr. The budget for the Spanish zone in 1950 balanced at 280,399,318 pesetas. The 1951 ordinary budget of the international administration at Tangier provided for receipts of 1,073,283,000 fr. and expenditures of 1,066,126,826 fr.; the extraordinary budget balanced at 967,000,000 fr. Custom receipts provide most of the revenue.

Exploitation of French Morocco's almost inexhaustible deposits of phosphate is a state monopoly and produced a total of 4,022,000 metric tons in 1950. Other major minerals are coal, cobalt, iron ore, manganese ore, molybdenum, tin, zinc and lead. Iron ore (1949: 955,317 metric tons) is the chief mineral of the Spanish zone; others are antimony and manganese.

Cork, gums and tannins are the principal forest products in the French zone, mostly from the northern Atlas slopes; in the Spanish zone, cork, wax and charcoal are leading products. Waters off both coasts provide rich fisheries.

TOPOGRAPHY AND CLIMATE. On the Atlantic coast, there is a fertile plain; the Mediterranean coast is mountainous, making most of the Spanish zone a rugged area. The Atlas Mountains, running northeastward from the south to the Algerian frontier, average 11,000 feet in elevation.

Morocco's climate is essentially Mediterranean, modified by the Atlantic. On the Atlantic coast the temperatures are relatively cool (at Mogador, 61.5° in January and 72.3° in August). Inland the climate

is more continental, with colder winters and hotter summers (at Fez, 50° in January and 80.6° in August). The rainy season is in October–November and April–May. Snow falls at altitudes above 3,000 feet.

Nepal (Military Oligarchy)

Area: c.54,000 square miles.
Population (est. 1948): 7,000,000 (Gurkha [predominant], Magar, Gurung, Bhotia [Tibetan], Newar).
Density per square mile: c.129.6.
Ruler: Tribhubana Bir Bikram.
Prime Minister: Sir Mohan Shumshere Jung Bahádur Ráná.
Principal city and capital: Katmandu (estimated population, 108,800).
Monetary unit: Nepalese rupee.
Languages: Parbatia, Gubhajius, Tibetan.
Religions: Hinduism, Buddhism.

HISTORY. A landlocked country about the size of Iowa, lying between the Republic of India and Tibet, Nepal has two great distinctions. It contains Mt. Everest, 29,002 feet high, the tallest measured mountain in the world. And it produces some of the toughest fighting men in the world —the Gurkhas.

Led by Rajah Prithwi Narayana, the Gurkhas invaded Nepal from India in 1768 and conquered it. A commercial treaty was signed with Britain in 1792, and in 1816, after more than a year's hostilities, the Nepalese agreed to allow British residents to live in Katmandu, the capital. In 1923 Britain recognized the absolute independence of Nepal. The United States and Nepal signed a treaty of friendship and trade on April 25, 1947. Plans for extensive social and political reforms were announced in the same year, but the prime minister resigned soon thereafter. King Tribhubana was deposed on Nov. 7, 1950, but was returned to the throne with Indian assistance on Feb. 15, 1951.

Nepalese troops assisted the British during the Indian Mutiny, the Tibet War of 1904, World War I, the Afghan hostilities of 1919, and World War II.

GOVERNMENT. Theoretically, the king is supreme, but real power is invested in the prime minister, nominated by special rules from among the royal family, whose members are Hindu Rajputs. The agreement under which King Tribhubana returned to the throne in 1951 provided for a cabinet of 10 members headed by the prime minister and named by and responsible to the king. Half the cabinet are popular representatives and half are members of the royal family. A constituent assembly was scheduled to be elected in 1952.

The predominant Gurkhas are essentially a military caste. The army numbers about 20,000 regulars and 25,000 reserves. More than 100,000 Gurkha volunteers fought with the Indian Army in the Burma campaign of World War II.

ECONOMIC CONDITIONS. Cultivated and irrigated where possible, the main valley of Nepal grows rice, wheat, pulse, fruits, vegetables, spices, sugar cane and potatoes. A few sheep and cattle are grazed. Manufacturing is limited to native handicraft, but jute and textile mills are being established. Trade with India and Pakistan passes through various frontier stations, and there are two mountain trade routes to Tibet.

Main exports include hides, skins, opium, gums, resins, dyes, jute, wheat, pulse, rice, spices and timber. Two railroads enter Nepal for short distances—one from Raxaul, India, to Amlekhganj, the other from Jayauagar to Bijulpura. Transportation is for the most part difficult.

TOPOGRAPHY, RESOURCES AND CLIMATE. Along its southern border, Nepal has a strip of level land which is partly forested, partly cultivated. North of that is the slope of the Himalayan Range, including Mt. Everest and many peaks higher than 20,000 feet. Mineral resources, nearly all unexploited, include lignite, copper, zinc, lead, sulfur, marble and iron. Southern Nepal has valuable forests which yield gum, timber, resin and dye. Hemp plants grow wild. Mean temperature is 60°, with the hot season from April to June. Most of the rainfall (average 60 in. annually) occurs from June to October.

Netherlands—Indonesian Union

Netherlands (Kingdom)

(Koninkrijk der Nederlanden)

Area: 12,504 square miles.*
Population (est. Jan. 1, 1951): 10,200,280 (practically all Dutch).
Density per square mile: 815.7.
Sovereign: Queen Juliana.
Prime Minister: Willem Drees.
Principal cities (est. 1951): Amsterdam, 845,266 (capital, financial center); Rotterdam, 684,658 (chief port); The Hague ('s Gravenhage), 571,853 (seat of government); Utrecht, 195,121 (railway center); Haarlem, 164,007 (tulip center).
Monetary unit: Guilder.
Language: Dutch.
Religions (census 1947): Roman Catholic, 38.5%; Dutch Reformed, 31.0%; other Protestant, 13.3%; Jewish, 0.2%; others and no creed, 17.0%.

HISTORY. The Netherlands is small, half again as large as Massachusetts, but it is densely settled, is a major colonial power, and was eighth from the top in world

* Land area only.

trade at the start of World War II. Occupied by the Nazis until May, 1945, the Netherlands emerged with a fairly well salvaged economy and a less than average degree of the political chaos that gripped Europe.

Julius Caesar, the Roman, found the low-lying Netherlands inhabited by Germanic tribes, the Nervii, Frisii and Batavi. The Batavi on the Roman frontier did not submit to Rome's rule until 13 B.C., and then only as allies. A part of Charlemagne's empire in the 8th century A.D., the area later passed into the hands of Burgundy and the Austrian Hapsburgs and finally in the 16th century came under Spanish rule. When Philip II of Spain suppressed political liberties and the growing Protestant movement in the Netherlands, a revolt led by William of Orange broke out in 1568. Under the Union of Utrecht in 1579, the seven northern provinces became the Republic of the United Netherlands.

The Dutch East India Company had been established in 1602, and by the end of the 17th century Holland was one of the great sea and colonial powers of Europe. In 1689 William III of Orange and his wife, Mary, the elder daughter of James II of England, became King and Queen of England. The power of the republic declined in the 18th century during the wars with Spain and France, and in 1795 French troops ousted William V.

Following Napoleon's defeat, the United Netherlands and Belgium became the "Kingdom of the United Netherlands" under William I, son of William V and head of the House of Orange. The Belgians withdrew from the union in 1830, forming their own kingdom. William I abdicated in favor of William II in 1840; the latter was largely responsible for the promulgation of a liberal constitution in 1848.

The Netherlands continued to prosper during the long reign of William III from 1849 to 1890. The male line of the House of Nassau became extinct with his death in 1890 and he was succeeded by his 10-year-old daughter, Wilhelmina, who was crowned Queen in 1898.

Neutrality was maintained during World War I, but overseas trade suffered heavily from the Allied blockade and German submarine warfare.

The prime minister from 1933 to 1939, except for brief intermissions, was Dr. Hendrick Colijn, leader of the Protestant Anti-Revolutionary Party. At the outbreak of World War II neutrality was proclaimed, but German troops invaded the country May 10, 1940, and by May 15, Dutch forces were ordered to lay down their arms. Queen Wilhelmina and Crown Princess Juliana fled to London, where a government-in-exile was established under Prime Minister P. S. Gerbrandy.

The German Army in the Netherlands capitulated May 5, 1945, and on May 23, the Dutch cabinet met once more in The Hague and tendered its resignation to Queen Wilhelmina. A new cabinet was formed on June 23 under Professor Willem Schermerhorn, a resistance leader and head of the Labor party. The Catholic party obtained a plurality in the May, 1946 elections and its leader, Dr. Louis J. M. Beel, set up a Labor-Catholic cabinet on July 3.

In parliamentary elections held July 7, 1948 (made necessary by consideration of constitutional questions dealing with Indonesia), the Catholic party retained its plurality, but Dr. Beel was unable to form a new cabinet and on Aug. 2 Labor leader Willem Drees formed a new coalition government.

Queen Wilhelmina abdicated after her fiftieth anniversary as ruler on Sept. 6, 1948, and was succeeded by Juliana, of Orange and Nassau, her only child, who took her oath as Queen of the Netherlands in a brilliant ceremony in the Nieuwe Kerk (500-year-old church) in Amsterdam.

GOVERNMENT. Queen Juliana, born April 30, 1909, was married on Jan. 7, 1937 to Prince Bernhard of Lippe-Biesterfeld (born in 1911). They have four daughters: Beatrix, the heiress apparent, (born 1938); Irene (born 1939); Margriet Francisca (born 1943), and Maria Christina (born 1947).

The Netherlands is a constitutional and hereditary monarchy, with female succession taking place only in default of male heirs. Executive power is vested exclusively in the sovereign, while legislative power rests with the sovereign and the States-General (Parliament). The upper chamber of Parliament, with 50 members, is elected for 6 years by the provincial states. The lower chamber, which shares with the government the privilege of initiating new bills and proposing amendments, consists of 100 deputies who are elected directly for four years and retire *en bloc*. Executive power is exercised in part by responsible ministers, headed by the prime minister and holding office at the pleasure of the sovereign. Suffrage is universal for all Dutch subjects of 23 years of age. The party standing in the lower chamber (elections of July, 1948) is as follows: Catholic 32, Labor 27, Anti-Revolutionary 13, Communist 8, Christian Historical Union 9, others 11.

Each of the eleven provinces has a local representative body—a Provincial State—presided over by a royal commissioner. The State collects taxes, and legislates on local matters. Routine administrative work of the province is carried on by a group of

six members called the Deputed States. Each of the 1,054 communes has a locally elected council and a mayor appointed by the crown.

DEFENSE. Military service is compulsory. The army had about 175,000 men in 1949, and the air force 300 planes. The navy on Jan. 1, 1951, had 1 fleet carrier, 2 light cruisers (2 more under construction), 5 destroyers, 7 submarines, 7 frigates and other smaller craft. Defense forces were being expanded under a 4-year program, and 5 divisions were pledged to support NATO. An infantry force of 1,000 men and a destroyer were sent to Korea.

EDUCATION. Education is compulsory from the ages of 7 to 13; illiteracy is almost unknown. In 1947–48, elementary schools numbering 7,936 (of which over 5,000 were private) had a total enrollment of 1,293,269; 318 secondary schools had 86,490 pupils. The six universities and four *hogescholen* (vocational colleges) had 25,036 students. The four public universities are at Leyden, Utrecht, Groningen and Amsterdam; the two voluntary universities are the Calvinist University of Amsterdam and the Roman Catholic University of Nijmegen.

RELIGION. The royal family and a large number of the inhabitants belong to the Dutch Reformed Church (Protestant), but there is complete religious freedom. Appropriations from the national budget are made for support of the Protestant, Roman Catholic, Jewish and Jansenist Churches. The Roman Catholic element is strongest in the southern provinces of Limburg and North Brabant.

AGRICULTURE. Dutch farms are characteristically small, with only a few larger than 250 acres. Wheat (294,593 metric tons in 1950), barley (232,252 tons), rye (420,950 tons), oats (381,548 tons), potatoes (3,971,000 tons) and sugar beets (2,913,000 tons) are grown, but dairying is more important. In 1950 there were 2,723,000 cattle, 1,860,000 hogs, 390,000 sheep and 252,000 horses. Production of milk (1950: 5,723,000 tons), butter (93,000 tons), eggs (100,000 tons) is under state control. Large quantities of vegetables and fruits are raised for export. Almost as important as the dairy industry is the raising of tulip, hyacinth and other flower bulbs in the area around Haarlem.

INDUSTRY. The Netherlands is a highly industrialized nation, utilizing both overseas raw materials and domestic agricultural products. In 1948 there were 9,230 larger establishments with 773,527 workers. Leading industries are textiles, clothing, shipbuilding, shoes, food, and building materials.

The Netherlands ranks high among the world's shipbuilding nations; 120 vessels of 295,790 gross tons were under construction on March 31, 1951. Amsterdam is one of the world's leading diamond-cutting centers. Industrial production in April, 1951, was 151 per cent of the 1937 level.

TRADE. The adverse balance of trade has increased markedly since the end of World War II. Trade statistics, in millions of guilders (excluding parcel post, specie and diamonds) are as follows:

	1948	1949	1950
Exports	2,669.5	3,794.1	5,287.8
Imports	4,919.1	5,296.6	7,752.4

Principal customers in 1950 were western Germany (20%), Britain (15%), Belgium (14%), Indonesia (6%) and the U. S. (4%). Leading suppliers were Belgium (18%), western Germany (12%), the U. S. (12%), Britain (9%) and Indonesia (7%). The chief exports were dairy products and eggs (15%), fabrics and clothing (9%), machinery (8%), meat and fish (5%) and vegetables and fruit (4%). Leading imports were machinery, fabrics and clothing, iron and steel and manufactures, cereals and flour, and petroleum and products.

COMMUNICATIONS. The Dutch merchant marine had 1,170 seagoing vessels of 3,082,287 gross tons on Jan. 1, 1951—the fifth or sixth largest in the world. An extensive network of rivers expanded by many canals has led to extensive development of inland shipping. The length of navigable canals and rivers is almost 5,000 miles. River ships and barges numbered 17,222 on Jan. 1, 1951, with an aggregate dead-weight tonnage of 4,290,985. In 1950, 68,500,000 tons of freight were carried on rivers and canals. The wealth of water transport has obviated the need for wide railway development. In 1948 there were 2,083 miles of railway, all operated by a government-owned company, and, in 1949, 9,320 miles of highway open to traffic.

Air service is provided by Royal Dutch Airlines (KLM), which flew 23,860,000 miles on 49 routes in 1950 and carried 416,000 passengers (excluding former inter-insular service in Indonesia).

FINANCE. Ordinary expenditures for 1951 were estimated at 4,319,000,000 guilders, extraordinary expenditures, at 599,000,000 guilders; food subsidies, at 175,000,000 guilders; and all revenue, at 4,533,000,000 guilders. Principal sources of revenue are the income, turnover and wage and salary taxes. The public debt on Dec. 31, 1950, was 20,517,561,000 guilders.

MINERALS, FORESTS AND FISHERIES. Netherlands minerals are few. The only important ones are coal (12,247,000 metric tons in 1950), lignite and salt. There also are peat swamps and about 630,000 acres of forest. The Netherlands fishing fleet

made a catch of 220,000 metric tons valued at 71,500,000 guilders in 1950. Herring (112,000 tons) was the most important item.

TOPOGRAPHY. Part of the great plain of north and west Europe, the Netherlands has maximum dimensions of 190 by 160 miles and is low and flat except in Limburg in the southeast, where some hills rise to 300 feet. About half the country's area is below sea level, making the famous Dutch dikes a requisite to use of much land. Reclamation of land from the sea through dike-building has continued through recent times, and such land is usually very fertile.

The province of Zeeland consists mainly of six delta islands guarding the mouth of the Schelde (Scheldt) River and the entrance to Belgium's port of Antwerp. Off the northwest coast are the sandy West Frisian Islands, lying from three to twenty miles out and stretching from the Zuider Zee to the German coast.

All drainage reaches the North Sea, and the principal rivers—Rhine, Maas (Meuse) and Schelde—have their sources outside the country. The Rhine is the most heavily used waterway in Europe, and nearly three-fourths of its 75 to 85 million tons of annual prewar traffic was handled through the port of Rotterdam.

CLIMATE. Marsh mists, sea fogs and a humidity exceeding 80 per cent mark the Netherlands climate. Winters are colder than in eastern England at the same latitude. Utrecht, roughly central in location, has a January average temperature of 34.2° and a July average of 62.6°. Average rainfall for the country is about 28 inches, with July–September the wettest period.

NETHERLANDS OVERSEAS TERRITORIES

NETHERLANDS ANTILLES — Status: Part of the United Kingdom of the Netherlands.

Area: 403 square miles.
Population (est. 1950): 165,000.
Capital: Willemstad (pop. 1949: 45,000).
Governor: L. A. H. Peters.
Foreign trade (1949): exports, 827,000,000 florins; imports, 963,000,000 florins. Chief export: petroleum products (more than 95 per cent).
Agricultural products: aloes, beans, corn.
Manufactures: refined petroleum, straw hats.
Mineral products: lime phosphate, salt.

This comprises two groups of Caribbean islands 500 miles apart; one, about 40 miles off the Venezuelan coast, consists of Curaçao (210 sq. mi.), Bonaire (95 sq. mi.) and Aruba (69 sq. mi.); the other, lying to the northeast, consists of 3 small islands with a total area of 29 square miles. The Dutch acquired the island of Curaçao from Spain in 1634 and have held it since, except for short intervals during the Napoleonic Wars. The U. S. accepted the invitation of the Netherlands government during World War II to dispatch troops to Curaçao to co-operate in its defense. Administrative officials include the governor (appointed by the crown) and an elected legislature and cabinet.

The backbone of Curaçao's economy is the refining of crude oil which comes from the adjacent Maracaibo fields in Venezuela. The refinery on Aruba, the world's largest, completed in 1945 the processing of the billionth barrel of oil since its opening in 1929. Aside from native Curaçoans, there were in the territory 7,511 English, 5,156 Dutch and 4,213 Venezuelans in 1943. Dutch is the official language, but many inhabitants speak a patois known as Papiamento, a mixture of Spanish, Dutch, English, Portuguese, native and other words. Only a small part of the trade is carried on with the homeland.

The island of Curaçao has a torrid climate, with average temperatures of 79° in January and 83° in September. Rainfall is light, averaging only 16 inches annually—mostly from October to January.

SURINAM (Dutch Guiana)—Status: Part of the United Kingdom of the Netherlands.

Area: 54,291 square miles.
Population (est. 1950): 192,000.*
Capital: Paramaribo (pop. 1947: 75,233).
Governor: J. Klaasesz.
Foreign trade (1949): exports, 34,077,650 Surinam guilders; imports, 37,812,004 guilders. Chief exports: bauxite (74%).
Agricultural products: rice (1949: 30,000 metric tons), sugar, coffee.
Minerals: bauxite (1949: 2,161,585 metric tons), gold (118,000 grams).
Forest products: balata (1949: 54 metric tons), timber.

* Excluding aborigines, numbering about 25,000.

Surinam lies in northeastern South America between British and French Guiana. It was received by the Dutch from England at the Peace of Breda (1667) in exchange for New York and at that time included British Guiana, which was seized by England in 1803 and formally ceded to her at the conclusion of the Napoleonic Wars. The United States and Brazil accepted the invitation of the Netherlands government during World War II to cooperate in the defense of the valuable bauxite mines. The governor (appointed by the crown) is assisted by an all-native legislature and cabinet, which have sole responsibility in domestic matters.

Mining is the most important activity, and only about 65,000 acres are devoted to agriculture. The largest bauxite mines are owned by Aluminum Company of America subsidiaries. In 1946 a company was formed to work 10,000,000 acres of the area's vast, but almost inaccessible, hardwood forests.

In 1948 the heterogeneous population included 2,100 Europeans, 2,560 Chinese, 22,000 Djukas (descendants of escaped slaves), 3,700 aboriginal Indians, 81,750 Negroes and mulattoes, as well as 97,000 Indian and East Indian laborers brought in after the abolition of slavery in 1863 to work the sugar plantations.

From its settled coastal plain, Surinam runs back to a virtually unexplored mountain and jungle area along the Brazilian border. Rivers are the chief means of interior travel. The climate is tropical throughout but is modified by the northeast trade winds. Yearly range of temperature is approximately 70.5°–90°. Annual rainfall is about 90 inches on the coast.

NETHERLANDS NEW GUINEA—Status: Part of the United Kingdom of the Netherlands.
Area: 151,789 sq. mi.
Population (est. 1949): 1,000,000.
Capital: Hollandia.
Governor: S. L. J. van Waardenburg.
Agricultural products: sago, coconuts, sugar cane, sweet potatoes.

The western part of New Guinea, second largest island of the world, with smaller adjacent islands, forms part of the kingdom of the Netherlands. The area remained Dutch upon the transfer of sovereignty in Indonesia in Dec., 1949, with the understanding that its status would be determined within one year by negotiation between the Netherlands and Indonesia. Subsequent negotiations did not lead to any agreement.

The Papuans are the dominant stock; there are also Melanesian and Negrito elements. Commerce and industry are almost unknown, and life is primitive, with headhunting and cannibalism not unknown even today.

Dutch influence dates back to the activities of the Dutch East India Company in the 17th century. In 1828, the Dutch government declared Northwest New Guinea part of the Dutch East Indian colonies, and the area was administered as part of the Netherlands Indies until 1949.

The northern half of the area is mainly hilly, with a very high range of mountains traversing it from east to west. The extreme west is almost entirely hilly, and the south is flat with vast swamps near the coast.

Indonesia (Republic)
(Republik Indonesia)

Area: 583,479 square miles.*
Population (est. 1949): 79,260,000* (Native except for 1,190,014 Chinese, 240,162 European [208,269 Dutch], and 7,195 Japanese in 1930).
Density per square mile: 135.8.
President: Achmed Sukarno.
Premier: Sukiman Wirjosandjajo.
Principal cities (census 1930): Jakarta (Batavia), 435,184 (est. 1949: 1,200,000) (capital); Surabaja, 341,675 (seaport, naval base); Semarang, 217,796 (seaport, central Java); Bandung, 166,815 (commercial center, west Java); Surakarta, 165,484 (sugar, tobacco).
Monetary unit: Rupiah.
Languages: Javanese, Sundanese, Madurese, Malay, Dutch.
Religions: Mohammedan (predominant), Christian (about 2,500,000), Brahmin, Buddhist.

* Excluding Netherlands New Guinea.

HISTORY. The sovereign state of Indonesia, a group of islands with a total area more than twice that of Texas, constitutes one of the world's richest natural areas. These islands—Sumatra, Java, Madura, central and southern Borneo, Celebes and the Moluccas—would reach from San Francisco to Honolulu if their extent was transposed to the eastern Pacific. They have great wealth in tin, rubber, spices, oil, quinine and copra. Postwar economic recovery, however, was retarded in Java and Sumatra by conflict between the Dutch and native nationalists, and between the latter and Communists.

During the first few centuries of the Christian era, most of the islands came under the influence of Hindu priests and traders who spread their culture and religion. Moslem invasions began in the 13th century, and most of the area was Moslem by the 15th century. Portuguese traders arrived early in the 16th century but were ousted by the Dutch about 1595. After Napoleon subjugated the Netherlands homeland in 1811, the British seized the islands but returned them to the Dutch in 1816. Political and economic reforms were introduced about 1870, and in 1903 the natives won a part in local affairs. In 1922 the islands were made an integral part of the Netherlands kingdom.

In World War II, Japanese troops began their attacks in early 1942; they took Batavia on March 5 and the big naval base at Surabaja by March 10. Japanese military occupation with nominal native self-government continued until Aug., 1945, except in outlying parts of New Guinea and Borneo. About the time of the Japanese surrender, a self-styled Indonesian Republic headed by Achmed Sukarno sprang up and took over effective control of parts of Sumatra and Java. Allied forces, mostly British Indian troops, moved in, and fighting between them and the nationalists continued until Nov. 15, 1946, when Dutch-native negotiations resulted in a draft agreement initialed at Linggadjati, near Cheribon. The agreement was formally signed by Dutch and Indonesian authorities on March 25, 1947.

Under this agreement there was to be formed by Jan. 1, 1949, the Netherlands-Indonesian Union, consisting on the one hand of the Netherlands, Curaçao and Surinam, and on the other of the United States of Indonesia. The latter was to be a sovereign state composed of three equal states: the Republic of Indonesia (Java, Sumatra, Madura), East Indonesia (Celebes, the Moluccas, Bali, Lombok, Dutch Timor), and Borneo.

Plans for implementing the agreement, however, remained in controversy, and fighting between the Dutch and the nationalists broke out anew on July 20, 1947. Dutch forces made large gains in both Sumatra and Java and regained control of Madura. Both sides issued cease-fire orders on Aug. 4, 1947, in response to a call from the U. N. Security Council, which named a Good Offices Commission under whose auspices the Dutch and the Republic signed another truce on Jan. 17, 1948, aboard the U.S.S. *Renville*. A provisional federal government for the whole area was installed on Mar. 9, 1948, but difficulties between the Dutch and the Republic continued. On Dec. 18, 1948, Dutch forces instituted "police" action against Republican areas and seized the Republican leaders. Hostilities ceased Jan. 1, 1949, following U. N. intervention. On May 7, the Dutch agreed to return the exiled Republican regime to central Java.

Negotiations for establishment of the federation culminated in inter-Indonesian agreement on the terms of union on Aug. 2, 1949, and on a provisional constitution on Oct. 30. On Nov. 2, Dutch and Indonesian leaders agreed upon the terms of union between the Netherlands and Indonesia. Dr. Sukarno was elected president of the federation on Dec. 16 by representatives of the Indonesian states, and the first all-Indonesian cabinet was formed with Mohammed Hatta as premier. The transfer of sovereignty took place at Amsterdam on Dec. 27, 1949.

GOVERNMENT. Under the statute of union between the Netherlands and Indonesia, both are sovereign independent nations joined together in the person of the Queen of the Netherlands. The statute provides for economic, financial and military cooperation. The provisional constitution originally contemplated a federal form of government headed by the president, to whom ministers were responsible.

At the date of the transfer of power, Indonesia consisted of 7 *negaras* (autonomous states), including the Republic of Indonesia, and 9 *daerahs* (independent constitutional units). In the first few months of 1950, most of these areas were amalgamated, in many cases forcefully, into the Republic of Indonesia, with the result that, on May 19, 1950, an agreement was signed between the federal government (acting also on behalf of the 2 remaining *negaras* of east Indonesia and east Sumatra) and the Republic of Indonesia, providing that Indonesia should be a unitary rather than a federal state. On Aug. 15, 1950, Indonesia was formally proclaimed a unitary state consisting of 10 provinces.

Dutch forces were evacuated from Indonesia in the first part of 1950, and Indonesian members of the Royal Netherlands Indies army were incorporated into the federal army.

SOCIAL AND ECONOMIC CONDITIONS. There are institutions of higher learning at Jakarta and Bandung, and numerous schools are maintained by Christian missionaries.

In 1949–50 there were 24,542 primary schools, with 4,212,031 pupils; 1,250 secondary schools, with 165,399 students; and 681 Chinese schools, with 162,315 pupils.

The islands of Java and Madura, with only nine per cent of the area, have more than two-thirds of the population, and are among the most densely settled areas in the world (more than 800 per sq. mi.). The natives, including about 137 races and tribes, are mainly of Malayan stock, with the Javanese the most advanced.

Agriculture engages about 70 per cent of the adult males. Rich in a variety of crops, the islands prior to World War II produced about 31 per cent of the world's copra, 37 per cent of its rubber, 83 per cent of its pepper, and nearly all of its quinine. The big-estate agriculture on Java and Sumatra is devoted mainly to export. The rest is subsistence agriculture. Rice is the staple food and chief crop; production in 1950 was 10,530,000 short tons.

Recovery of plantation agriculture, especially sugar, tea and pepper, was hampered by the "scorched earth" tactics of the nationalists. Major plantation crops, with 1950 production in metric tons, are: rubber, 698,400; tea, 35,281; coffee, 10,600; cinchona bark, 5,670; (1949) palm oil, 118,624; palm kernels, 29,370.

Others are sugar, cacao, spices, agava fiber, copra and kapok. In addition to rice, the chief food crops are maize, cassava, sweet potatoes, peanuts and soybeans.

Livestock, important to the natives, included in 1949, 3,618,000 cattle, 1,254,000 hogs; (1948) 1,246,000 carabaos and 620,000 horses.

Industry, especially in Java, developed rapidly after 1930. In addition to industries connected with the processing of the rich natural products, there were established chemical works, textile and pape-

mills, soap factories, breweries, shipyards, a Goodyear tire and rubber plant and a General Motors assembly plant. War damage was severe.

Indonesia is primarily an importer of consumer and capital goods and an exporter of mineral and plantation products. Recent trade data are as follows (in millions of rupiahs):

	1948	1949	1950
Exports	1,040	1,478	2,741
Imports	1,134	1,574	1,527

Chief exports in 1950 were rubber (42%), petroleum and products (20%), copra (8%) and tin (7%). Leading customers were Malaya and Singapore (36%), the Netherlands (24%) and the U. S. (16%); leading suppliers, the U. S. (21%), the Netherlands (17%) and Japan (10%).

In 1940 there were 43,450 miles of road, mostly in Java and Sumatra; and 4,620 miles of railway, of which 3,387 were in Java and 1,233 in Sumatra.

The 1950–51 budget forecast revenue at 6,990,200,000 rupiahs and expenditures at 8,726,300,000 rupiahs. Preliminary 1951–52 figures were 8,050,000,000 rupiahs and 9,037,000,000 rupiahs, respectively. The national debt was reported provisionally at 6,620,000,000 rupiahs on Jan. 31, 1951.

Petroleum is the principal mineral product of modern Indonesia. The fields, in Sumatra, east Borneo and east Java, produced 62,100,000 barrels in 1939, which was 3 per cent of the world total. In 1950, production was about 50,097,000 barrels, and almost all the refineries were operating at prewar capacity.

The islands' output of 30,100 tons of tin in 1939 amounted to 16 per cent of the world supply. The industry recovered more rapidly than others after World War II, and produced 32,010 long tons of tin ore in 1950. Other important minerals include bauxite (1950: 531,143 metric tons), coal, salt, nickel and manganese. Deposits of uranium are believed to exist.

Forests, covering much of the area except Java, yield such products as timber, rattan, bamboo, gum, wild rubber, guttapercha and quinine. Most valuable timber is teak, found mostly in east Java. Ebony, sandalwood and ironwood also are cut.

TOPOGRAPHY AND CLIMATE. A backbone of high mountain ranges with many snow-capped peaks extends throughout the main islands of the archipelago. Earthquakes are frequent, and there are many active volcanoes, 90 of them in Sumatra. Borneo is heavily forested, with interiors that are difficult to penetrate.

The climate throughout the group is equatorial and monsoonal, with little variation of temperature (yearly average about 80°; at Batavia, 79°) and rainfall averaging over 100 inches a year. In Sumatra and Java the hot and rainy season usually lasts from May to October; December and January are relatively cool and dry; February, March and April, hot and dry.

Nicaragua (Republic)

(República de Nicaragua)

Area: 57,143 square miles.*
Population (census 1950†): 1,503,189 (1943: mestizo, 69%; white, 17%; Negro, 9%; Indian, 5%).
Density per square mile (land only): 26.3.
President: Anastasio Somoza.
Principal cities (est. 1948): Managua, 146,819 (capital); León, 53,277 (trading, railroad center); Matagalpa, 53,118 (coffee center); Jinotega, 41,065.
Monetary unit: Córdoba.
Language: Spanish.
Religion: Roman Catholic.

* Including inland water area of 3,475 square miles.
† Preliminary figures.

HISTORY. Nicaragua was first visited by the Spaniards in 1522. The chief of the country's leading Indian tribe at that time was called Nicaragua, from whom the nation derived its name. The country was part of Spanish Guatemala until the general Central American revolution in 1821. Upon the dissolution of the Central American Union in 1838, Nicaragua established itself independently. A United States naval force intervened in 1909 after two American citizens had been executed, and a few U. S. Marines were kept in the country from 1912 to 1925. The Bryan-Chamorro Treaty of 1916 gave the United States an option on a canal route through Nicaragua, and naval bases in the Gulf of Fonseca on the Pacific coast and on Corn Islands on the Atlantic side. Disorder after the 1924 elections brought in U. S. Marines again, but they were withdrawn gradually after the U. S.-supervised elections of 1928, although sporadic fighting continued between government troops and rebel forces under General Augusto Sandino. Juan B. Sacasa was elected president in the U. S.-supervised elections of 1932, but he was forced to resign in 1936. General Anastasio Somoza, elected president in Dec., 1936, restored political and economic stability. Re-elected in 1939, he remains the virtual dictator. Dr. Leonardo Argüello was elected president in Feb., 1947 but was ousted after taking office because of his opposition to Somoza. The newly elected constituent assembly named Victor M. Román y Reyes president on Aug. 15, 1947. Gen. Somoza took office again on May 21, 1950, after national elections.

GOVERNMENT AND DEFENSE. The constitution of 1948 provides for a president, popularly elected for six years, and a two-

house Congress—a 44-member Chamber of Deputies and a 15-member Senate—both elected for six years. There are sixteen regional departments. Military service is voluntary. The Guardia Nacional, both an army and police force, numbers about 3,500. A naval base built at the Pacific port of Corinto by the U. S. during World War II was turned over to Nicaragua in 1946.

SOCIAL AND ECONOMIC CONDITIONS. Although primary education is free and compulsory, about 60 per cent of the people are illiterate. There are three universities and several vocational schools. In 1949 there were 1,382 schools of all kinds with 101,502 students. Western Nicaragua, with about 75 per cent of the population, is inhabited principally by mestizos of Spanish and Indian blood, with some whites and Indians. Negroes and Indians are dominant in eastern Nicaragua.

More than half of Nicaragua is jungle-covered; agriculture, the leading industry, utilizes only 10 per cent of the total land. Coffee (exports 1949–50 season: 346,136 bags of 132 lbs. each) is the chief crop and grows in the western part, which also produces sugar cane, cacao, sesame, beans, rice, tobacco and corn, the chief subsistence crop. Bananas lead in the eastern part, with cotton second. About 900,000 acres are devoted to livestock grazing. Except for some sugar refining, only locally consumed products are manufactured.

Exports in 1950 (excluding gold) were valued at $26,620,000; imports, at $25,300,000. The U. S. supplied 82% of the imports and took 67% of the exports. Besides gold (about $8,240,000), leading exports were coffee, sesame, bananas and lumber.

Gold (1949: about 223,000 troy oz.) rivals coffee as the most lucrative export. Silver production in 1948 was 214,628 troy oz. One-third wooded, Nicaragua produces mahogany, rosewood, cedar, rubber and ipecac root. In 1947 Nicaragua exported 28,504,157 bd. ft. of logs and lumber, including 4,332,519 bd. ft. of mahogany.

Good highways, long lacking, are now being constructed; there were 418 miles of paved road in 1949. Railways, mostly nationalized and limited to the west, were only 236 miles in 1949. TACA (Central American Airlines) and Pan American both supply air service. Corinto and San Juan del Sur, on the Pacific, are the chief ports.

The 1949–50 budget forecast expenditures of 54,303,730 córdobas. The public debt on Dec. 31, 1949, was about $13,160,000, of which $8,860,000 was internal.

TOPOGRAPHY AND CLIMATE. Largest but most sparsely populated of the Central American nations, Nicaragua is mountainous in the west, with fertile valleys. A plateau slopes eastward toward the Caribbean. Two big lakes—Nicaragua, about 100 miles long, and Managua, about 38 miles long—are connected by the Tipitapa River. The Pacific coast is bald and rocky; the Caribbean coast, swampy and indented, is aptly called the "Mosquito Coast." The highlands have cool temperatures, while the coasts are hot and sultry. The east coast receives up to 100 inches of rain a year. The wet season is generally from May or June through November or December.

Norway (Kingdom)
(Norge)

Area: 125,193 square miles.
Population (est. Dec. 31, 1950): 3,281,000 (Norwegian, 98.7%; Swedish, .8%; others, .5%).
Density per square mile: 26.2.
Sovereign: King Haakon VII.
Prime Minister: Einar Gerhardsen.
Principal cities (est. 1948): Oslo, 427,500 (capital, chief port); Bergen, 113,683 (seaport, shipbuilding); (1946) Trondheim, 57,128 (seaport, timber, fish); Stavanger, 50,320 (seaport, fisheries).
Monetary unit: Krone.
Language: Norwegian.
Religions: Evangelical Lutheran (state), 96.8%; others, 3.2%.

HISTORY. Emerging in 1945 from the harsh German occupation of World War II, Norway faced the problem of rebuilding a shattered economy and of replacing the 50 per cent losses suffered by its merchant shipping fleet.

The country, about the size of New Mexico and the most thinly-populated nation of continental Europe, is one of the world leaders in fishing. Despite Soviet pressure, Norway adhered to the North Atlantic Pact in April, 1949.

Norwegians, closely akin to the Swedes and Danes, are of Teutonic origin. In the 7th and 8th centuries, Vikings from Norway constantly attacked the British Isles, and in the 9th century many of them settled in what are now Ireland and Normandy. Norway became a united kingdom in 872 under King Harald Haarfager. Christianity was introduced in the 10th century by King Olaf I.

Under the rule of Haakon IV (1217–63), Norway reached a peak of power, ruling the Shetland and Orkney Islands, Iceland, Greenland and the Hebrides. In 1319 Norway and Sweden were united under King Magnus VII, and in 1397 Denmark joined this union under Erik of Pomerania.

In 1450 the triple bond gave way to a union in which Norway was closer to Denmark, but the Treaty of Kiel, in 1814 at the end of the Napoleonic Wars, ceded Norway to Sweden. Norway protested and

declared itself independent. Sweden thereupon invaded Norway and forced the issue, requiring Norway to recognize the king of Sweden but leaving Norway its own government, army, navy and customs.

After this union was dissolved in 1905, Prince Karl of Denmark was elected king of Norway by the Storting (parliament) and ascended the throne as Haakon VII. During World War I, Norway was able to preserve its neutrality, though it suffered greatly from the Allied blockade and from the loss of many merchant ships. In World War II, Norway was invaded by the Germans on April 9, 1940, and resisted for two months before Nazi control was complete. On June 7, King Haakon and the government fled to London and established a government-in-exile.

Meanwhile, in Norway, a new word was born—quisling. It was derived from Major Vidkun Quisling, a Norwegian traitor who collaborated with the Germans and who was Minister President of the German-sponsored occupation government. Quisling eventually was executed by the Norwegians in October, 1945.

King Haakon and the government returned immediately after the German collapse in May, 1945, and an interim coalition cabinet took over, headed by Einar Gerhardsen. The latter's Labor party won a majority in the general elections of Oct. 8, 1945, and the all-Labor cabinet formed on Nov. 5, 1945, has since led the nation.

King Haakon VII, born August 3, 1872, second son of Frederick VIII of Denmark, married Princess Maud (born 1869, died 1938), third daughter of Edward VII of England. Their one son—Olaf, Crown Prince, born July 2, 1903—married Princess Märtha of Sweden (born 1901) on March 21, 1929. Their children are Princess Ragnhild Alexandria (born 1930), Princess Astrid (born 1932) and Prince Harald (born 1937). King Haakon is the uncle of Frederick IX of Denmark.

GOVERNMENT AND DEFENSE. Norway is a constitutional and hereditary monarchy with succession in the direct male line. The king's executive power is exercised by a council of state, or cabinet, consisting of the prime minister and at least seven other councilors. The 150 members of the Storting are popularly elected for a term of 4 years under proportional representation. When assembled, the Storting divides itself by election into two sections, the Lagting, composed of one-fourth of the members (38) and the Odelsting, composed of the rest. The Storting has a predominant position in the government since the cabinet is responsible to it. Moreover, the king cannot dissolve it before the expiration of its term. There is universal suffrage for all citizens, male or female, over 23. Party representation in the Storting (elections of Oct. 10, 1949) is Labor, 85; Conservative, 23; Liberal, 21; Agrarian, 12; Christian People's, 9.

The department of defense serves as a coordinating body for the army, navy and air force. The army is a national militia with compulsory service from 18 to 55. Army strength in 1951 was about 15,000. The navy, on Dec. 31, 1950, had 5 fleet destroyers, 5 submarines, 10 frigates and escort vessels, 3 corvettes, 2 fleet mine sweepers and other minor vessels.

SOCIAL AND ECONOMIC CONDITIONS. Education is compulsory and free from 7 to 14. Illiteracy is almost unknown. In 1946, elementary schools had an enrollment of 289,449, and secondary schools had 44,356. The University of Oslo had 6,106 students in 1947; a second university was opened at Bergen in 1948.

The endowed state religion to which the king must conform is Evangelical Lutheran. The king nominates the clergy of the established church, which takes a leading part in primary education. All other Christian religions are tolerated, but Jesuits are barred.

From 1820 to 1920, more than 800,000 Norwegians emigrated, 96 per cent of them to the United States.

The well-advanced social welfare program includes social security, introduced late in the 19th century, poor relief, care of mothers and children, schools for the blind, deaf and deformed, housing, training of social workers, and old-age pensions. Labor is protected by a number of acts which provide for vacations, arbitration of disputes, and unemployment, accident and sickness insurance. The co-operative movement is well-organized.

Land suitable for cultivation, estimated at less than 5 per cent of the total area, consists of strips in the deep narrow valleys and around fiords and lakes. Foodstuff production is insufficient to meet domestic needs. Leading crops with 1950 production in metric tons, are wheat, 68,000; barley, 108,000; oats, 179,000; potatoes, 1,169,000; hay and fodder. The country is more adapted to stock raising than to crop growing; in 1949, there were 1,122,000 cattle, 1,808,000 sheep and 147,000 goats.

Raw materials produced in Norway form the basis of most of the manufactures. In 1948 there were 5,911 industrial establishments with 189,067 workers and gross production valued at 6,399,400,000 kr. Leading industries are food, machinery, metals, wood, paper and electro-chemicals. On Mar. 31, 1951, 60 vessels of 142,800 tons were under construction in Norwegian yards. Industrial production in April 1951 was 152% of the 1937 level.

Statistics of foreign trade are as follows, in millions of kroner:

	1948	1949	1950
Exports	2,063	2,137	2,787
Imports	3,708	4,221	4,846

In 1950 the leading suppliers were Britain (22%), Sweden (14%), the U. S. (12%) and France (6%). Leading customers were Britain (18%), Germany (12%), the U. S. (10%) and Sweden (8%). Chief exports were pulp, paper and cardboard (23%), fish and products (16%), fish oils and nonferrous metals.

The normally adverse trade balance is offset to some extent by invisible exports, particularly the earnings of the large merchant marine.

Norway is one of the greatest seafaring nations, and its merchant marine of 2,202 vessels (100 tons and over) of 5,455,704 gross tons (June 30, 1950) is the third largest in the world. War-time losses amounting to 2,393,000 tons were the third highest among the United Nations. The long coast line and the difficulties of inland transportation make coastal shipping especially important. In 1949 there were 2,484 miles of railway and 27,500 miles of highway.

The 1951–52 budget was balanced at 2,867,000,000 kr. The public debt on Dec. 31, 1950, was 4,770,000,000 kr.

Mineral resources are extensive, but coal deposits are entirely lacking except in Spitsbergen. The most important minerals (1950 production in metric tons) are iron ore, 403,575; aluminum, 46,622; pyrite ore, 749,363; and zinc, 43,096; copper ore, molybdenum ore, tungsten, tin and silver. Cheap electrical power, produced mainly by hydroelectrical plants (average monthly production 1950: 1,444,000,000 kwh), makes possible the extraction of nitrogen from the air and manufacture of potassium nitrate, an important fertilizer.

The forests, largely in the south and southeast, are one of the chief natural resources. About 25 per cent of the total area is covered with forests, of which 70 per cent is pine. Timber production in the 1950–51 season was about 6,000,000 cu.m.; pulpwood used in the production of chemical and mechanical pulp in 1950 was 3,789,977 cu.m. Paper and cardboard production in 1949 was 462,519 metric tons.

Fishing is one of the principal industries, engaging as many as 100,000 persons annually. A large number of the best European food fisheries are situated along the coast. The 1950 catch totaled 1,240,000 metric tons valued at 323,000,000 kr. Norwegians are the world's leading whalers and were the first to develop pelagic (open sea) whaling. Whale-oil production in the 1949–50 season was 1,122,460 barrels.

TOPOGRAPHY AND CLIMATE. Nearly 70 per cent of Norway is uninhabitable and covered by mountains, glaciers, moors and rivers. Its extreme length from the Skagerrak to North Cape—Europe's most northerly point, far above the Arctic Circle—is about 1,100 miles. Breadth averages 60 miles, with a maximum of 260. The hundreds of deep fiords that cut into Norway's coast line give it an over-all ocean front of more than 12,000 miles. Along the Swedish border are the rugged Kjölen (Keel) Mountains, and northeast of Bergen are the highest of Norwegian mountains, with Galdhöpiggen rising to 8,097 feet. Islands off the coast, numbering almost 150,000, form a breakwater and make a safe coastal shipping channel. The Lofoten and Vesterålen Islands, off the northwest coast, have an area of about 1,560 square miles and are a cod fishing center.

Norway has many rivers and lakes. Most of the rivers are short and swift, with numerous falls, and are invaluable as sources of hydroelectric power. By increasing the development of such power, Norway hopes to free itself from the necessity of importing coal, of which it has almost none.

The Gulf Stream affects the climate mildly. Summer temperatures range from about 50° in the extreme north to 60.6° at Oslo in July. February temperatures in Oslo average 24°, against 11° to −12° in the north. Norway is one of the lands of the midnight sun; in the extreme north for many weeks in the summer the sun never sets, and for an equal time in the winter the sun does not rise. Rainfall is heavy on the coast but decreases sharply inland.

OUTLYING TERRITORIES

SPITSBERGEN (SVALBARD).

This arctic archipelago, with an area of approximately 25,000 square miles, lies about 400 miles north of Norway and consists of West Spitsbergen (15,200 sq. mi.), North-East Land (about 6,000 sq. mi.), Edge Island (2,500 sq. mi.), Barents Island (580 sq. mi.), and several small islands including Bear Island. The group was probably discovered by Norwegians in A.D. 1194 and rediscovered by the Dutch navigator Barents in 1596. The question of sovereignty was long unsolved. By a treaty signed with the disputing nations on Feb. 9, 1920, however, Norwegian sovereignty was recognized, and Norway declared the area a part of the kingdom Aug. 14, 1925. Spitsbergen was occupied by Allied forces in the summer of 1941. Soviet proposals for establishment of joint military bases were rejected by Norway in Feb., 1947.

In the 18th and 19th centuries, Spitsbergen was a whaling center, but now the only important product is coal (1950: 373,926 metric tons). Population (1949), largely miners, none indigenous: 3,950.

JAN MAYEN ISLAND.

This arctic island (144 sq. mi.), lying between Greenland and the north of Norway, was discovered by Henry Hudson in 1607. It was annexed to Norway May 8, 1929. A Norwegian weather station was established in 1921, and during World War II a U. S. Navy weather station was maintained on the island. It is otherwise uninhabited.

OTHER TERRITORIES. Norway also exercises sovereignty over Bouvet Island (22 sq. mi.) in the South Atlantic, Peter I Island (94 sq. mi.) in the Antarctic Ocean, and that part of the Antarctic continent lying between 20 degrees and 45 degrees east. All are uninhabited.

Outer Mongolia. See Mongolian People's Republic

Palestine. See Israel; Jordan

Panamá (Republic)

(República de Panamá)

Area: 28,575 square miles.
Population (census 1950*): 801,982 (1940: mestizo, 65.34%; Negro, 13.31%; white, 11.07%; Indian, 9.53%; others, .75%).
Density per square mile: 28.1.
President: Alcibiades Arosemena.
Principal cities (census 1950*): Panamá City, 127,407 (capital and chief port); Colón, 52,035 (chief Caribbean port); Ciudad David, 14,969 (bananas).
Monetary unit: Balboa.
Language: Spanish (official).
Religion: Roman Catholic, 93%; Protestant, 6%; others, 1%.

* Preliminary figures.

HISTORY. Visited by Columbus in 1502 on his fourth voyage and explored by Balboa in 1513, Panamá was the principal transshipment point for Spanish treasure and supplies to and from South and Central America in colonial days. In 1821, when Central America revolted against Spain, Panamá joined Colombia, which already had declared its independence. For the next 82 years, Panamá attempted unsuccessfully to break away from Colombia. After U. S. proposals for canal rights over the narrow isthmus had been rejected by the Colombian Senate, Panamá proclaimed its independence with U. S. backing in 1903. U. S. Marines restrained Colombian intervention on the ground that the U. S.-Colombian treaty of 1846 gave the United States the right to keep the isthmus open.

For canal rights in perpetuity, the United States paid Panamá $10,000,000, and agreed to pay $250,000 ($430,000 after devaluation of the U. S. dollar in 1933) each year. In exchange, the United States got the Canal Zone, a ten-mile-wide strip across the isthmus, and a considerable degree of influence in Panamanian affairs. Since 1903, Panamá's government generally has been stable, with orderly presidential succession. Arnulfo Arias, a pro-Axis president, was ousted and exiled in 1941, and succeeded by Dr. Adolfo de la Guardia.

During World War II the U. S. was granted the right to establish a number of bases in Panamá. All were evacuated in 1948 after the Assembly rejected a 10-year lease agreement on Dec. 22, 1947.

Enrique A. Jiménez was elected provisional president in 1945 by the National Assembly, which later extended his term to Oct. 1, 1948. The presidential election of May, 1948, was extremely close and the subject of heated controversy. The government candidate, Domingo Díaz Arosemena, was declared the victor by the national election jury on Aug. 7, and he took office on Oct. 1. He died Aug. 23, 1949 and was succeeded by Daniel F. Chanis, Jr., the first vice president. Following a hectic week in late Nov., 1949, the national police installed Arnulfo Arias as president. He in turn was ousted on May 10, 1951, and replaced by first vice-president Alcibiades Arosemena.

GOVERNMENT. Under the 1946 constitution, the Assembly and the president are elected for six-year terms, with the president ineligible to succeed himself. Panamá has no army or navy, but has a national police corps numbering 2,000.

SOCIAL AND ECONOMIC CONDITIONS. Although education is free and compulsory between 7 and 15, illiteracy is very high in Panamá. In 1949, there were 922 primary schools with 101,249 students and 15 secondary schools with 7,155 students; the national university at Panamá City enrolled 1,343 students.

About five-eighths of the nation is unoccupied. A fourth of the population is in Colón and in Panamá City, the oldest white settlement on the Pacific coast of the Americas. In the cities, the lower classes are Negro and Negroid, descendants of British West Indian laborers on the canal. Once literally a pest hole from coast to coast, Panamá has been made into one of the healthiest of the tropical nations through U. S. sanitation methods introduced by Canal Zone officials.

Bananas are the main agricultural crop; others are cacao, tobacco, abacá, rubber, rice, coffee and sugar cane, all of which are exported, as are cattle, hides and gold. Imports in 1950 were $67,055,745; exports, $10,140,912. Chief exports were bananas (57%) and abacá (15%). Leading customers were the U. S. (91%), Colombia and

the Netherlands; leading suppliers, the U. S. (65%), Chile and the Canal Zone.

The Panama Canal is the country's biggest economic asset. About a third of the national income is ordinarily derived from the wages of Panamanians working in the Canal Zone, or from cash spent by U. S. personnel in the Zone. The national budget for 1950 balanced revenue and expenditure at $32,245,919. The public debt on Dec. 31, 1950, was $33,015,641.

The main railway is the U. S. Government-owned Panamá Railroad, 47.64 miles long, bridging the isthmus from Panamá City to Colón. All rail mileage in 1949 totaled 223; highway mileage in that year was about 1,100. In recent years many foreign ships have been registered in Panamá to escape high labor costs and governmental regulations in other nations; in 1950, the merchant marine consisted of 573 vessels (100 tons and over) of 3,361,339 gross tons, one of the largest in the world.

Minerals include gold, oil, copper and platinum near the Colombian border, but transit shortcomings have hampered development. Forest resources include mahogany, copaiba, sarsaparilla and ipecacuanha. Pearl fishing is a minor industry.

TOPOGRAPHY AND CLIMATE. Panamá, roughly the size of South Carolina, runs east to west for 420 miles from Costa Rica to Colombia, and has a maximum width of 118 miles, with 477 miles of Caribbean coast and 767 on the Pacific. At the narrowest and lowest point, the canal bisects the country. Outlying islands number about 630 in the Caribbean and 116 in the Pacific. Panamá steps up from coastal lowlands, with extremely heavy rainfall, to upland valleys and plateaus covered by dense forest and a few mountain peaks, some volcanic, near the Costa Rican border. Its many rivers are not navigable.

Paraguay (Republic)

(República del Paraguay)

Area: 154,165 square miles.
Population (census 1950*): 1,406,000 (Paraguayan, 97%; Indian, 3%).
Density per square mile: 9.1*.
President: Federico Chaves.
Principal cities (est. 1948): Asunción, 130,067 (capital); Villarrica, 31,081 (sugar, tobacco); Concepción, 16,487 (port, Paraguay River); Encarnación, 16,078 (rail terminus).
Monetary unit: Guaraní.
Languages: Spanish (official), Guaraní.
Religion: Roman Catholic (official).

* Preliminary figures.

HISTORY. Paraguay, a landlocked South American country with a good river outlet to the South Atlantic, is about the size of Montana and, more often than not, is under the rule of a dictator-president.

In 1526 and again in 1529, Sebastian Cabot explored the area when he sailed up the Paraná and Paraguay Rivers. Domingo Martínez de Irala, a Spaniard, founded Asunción in 1537 and became the dominant figure in Paraguay for the next two decades. From 1608 until their expulsion from the Spanish dominions in 1767, the Jesuits maintained an extensive establishment in the south and east of Paraguay. In 1811 Paraguay revolted against Spanish rule and became a nominal republic under two consuls, one of whom, Dr. José Rodríguez Francia, ruled as absolute dictator until his death in 1840. His dictator successor, Carlos Antonio López, was succeeded in 1862 by his son, Francisco Solano López, under whose leadership Paraguay lost a good part of its population in a disastrous five-year war with Argentina, Brazil and Uruguay. In the succeeding decades, economic progress was handicapped by revolution, intrigue and corrupt government. Paraguay remained neutral in World War I. Economic and financial exhaustion resulted from the war with Bolivia (1932–35), after which Paraguay was awarded three-fourths of the disputed Gran Chaco region (1938).

General José Félix Estigarribia, elected president constitutionally in 1939, was killed a year later in a plane crash. General Higinio Morínigo took over and held office, despite several abortive revolts and a 6-month civil war in 1947, until June, 1948, when he was ousted. Juan Natalicio González, elected president in the Feb., 1948, elections, took office Aug. 15, but successive revolts on Jan. 30 and Feb. 26, 1949, ousted him and his successor. The leader of the latter revolt, Felipe Molas López, was elected president on Apr. 17, but gave way to Federico Chaves in another internal upheaval on Sept. 11, 1949.

GOVERNMENT AND DEFENSE. Since adoption of the 1940 constitution, Paraguay has been a semi-authoritarian republic which elects a president every five years by popular vote, and a one-house Congress on a population basis. There is also a Council of State, somewhat equivalent to an upper house, its members named by the government. The presidentially-appointed cabinet administers the government and is required merely to inform the Congress and Council of its policy.

The army numbers approximately 5,000. Military service is compulsory for two years. For patrolling the Paraguay River, the country's life line, there is a navy of about 1,400 men with four gunboats. The budget share allotted to defense averages 50 per cent.

SOCIAL AND ECONOMIC CONDITIONS.

The illiteracy rate is unofficially estimated at 60 per cent, one of the highest in South America. Education is free and supposedly compulsory. In 1947 there were 185,000 pupils attending 1,312 elementary schools. The University of Paraguay at Asunción had 1,800 students in 1950, and there were several normal and agricultural schools.

The Paraguayans are a homogeneous blend of Spanish, Portuguese and Italian, with considerable Guaraní Indian blood. There are almost no Negroes; the 35,000 to 50,000 uncivilized Indians live mainly in the Chaco. The country is 90 per cent bilingual, with Guaraní dominating over Spanish (the official language) in rural areas.

A well-favored land, Paraguay is predominantly a cattle country, keeping about 3,000,000 head. The soil is fertile and the climate suitable for subtropical crops. The chief cash crop is cotton (acreage: 150,000; 1949 ginned output: 12,000 metric tons); the staple food crop is manioc. Other crops are rice, maize, yerba maté, tobacco, sugar, peanuts and fruits. Oil of petit-grain, an important perfume ingredient, is extracted from the leaves of the bitter orange. Aside from the production of canned meat (about 15,000 tons yearly) and quebracho extract, the manufactures of the country are only slightly developed, but show steady growth.

Exports in 1949 were valued at $32,880,000 and imports at $28,480,000. Argentina, the U. S. and Britain were the leading customers and also the principal suppliers. Chief exports are hides, timber, cotton and quebracho extract.

River traffic, the principal means of communication, was monopolized until recently by an Argentine company, but the Paraguayan river fleet is of increasing importance. The Paraguay river is navigable for vessels of 12 ft. draft to Asunción, principal shipping point, and Concepción; and for smaller vessels for its entire length. The Alto Paraná is navigable for larger vessels for almost its whole length. Railway mileage in 1947 was 749. In 1950 there were some 600 miles of modern highways.

Domestic air service is furnished by the nationalized Línea Aérea de Transporte Nacional (LATN). Several foreign lines supply international service.

The 1950 budget called for expenditures of 112,900,000 guaranis and revenue of 98,300,000 guaranís. The national debt in 1948 was $22,500,000.

Paraguay's mineral deposits are small, except for manganese in the near-inaccessible northeast. In the western Chaco, a U. S. oil company has been exploring for oil. Forest resources are considerable, especially in the Chaco. Quebracho—the "Axe-breaker," a wood so heavy that it will not float—is the principal commercial tree. The wood has many uses, from paving blocks to ox-cart wheels. Quebracho tannic extract (1948 exports: 36,000 metric tons) is the chief product. Its export is limited by agreement with Argentina, also a heavy producer.

TOPOGRAPHY AND CLIMATE. Eastern Paraguay, between the Paraná and Paraguay Rivers, is upland country with the thickest population settled on the grassy slope that inclines toward the Paraguay River. The greater part of the Chaco region, to the west, is covered with marshes, lagoons, dense tropical forest and jungle. In the east, the temperature averages about 81° in summer (December–February) and 64° in winter (May–August). From Asunción, with an annual average greater than 60 inches, the rainfall decreases in the west.

Peru (Republic)

(República del Peru)

Area: 482,133 square miles.
Population (est. 1950): 8,406,000 (white and mestizo, 53%; Indian, 46%; Asiatic, Negro and others, 1%).
Density per square mile: 17.4.
President: Manuel A. Odría.
Principal cities (est. 1949): Lima, 800,460 (capital); Arequipa, 95,230 (commercial center); Callao, 85,892 (port of Lima); Cuzco, 54,292 (ancient Incan capital); Trujillo, 46,304 (mining).
Monetary unit: Sol.
Languages: Spanish, Quéchua, Aymará (Indian).
Religion: Roman Catholic.

HISTORY. Peru, once part of the great Incan empire and later the major viceroyalty of Spanish South America, is more than three times the size of California. It was conquered in 1531–33 by Francisco Pizarro. On July 28, 1821, Peru proclaimed its independence, but the Spanish were not finally defeated until the Battle of Ayacucho on Dec. 9, 1824. For a hundred years thereafter the Peruvian course was rough. Revolutions were frequent, and a new war was fought with Spain in 1864–66. The dispute with Chile over Tacna and Arica was not finally settled until 1929, and war with Colombia over the Leticia Corridor was narrowly averted in 1931. Major economic development, mostly by foreign capital, began late in the last century. In World Wars I and II, Peru enjoyed cotton and copper booms. General Oscar Benavides became president in 1933 and vigorously set about suppressing popular rights and representative government. He was succeeded in 1939 by President Manuel Prado y Ugarteche.

Peru emerged from 20 years of dictatorship on July 28, 1945, with the inaugura-

tion of President José Luis Bustamante y Rivero after the first free election in many years. However, the change to a regime in which political prisoners were freed and the press was free to criticize was soon tempered by factional troubles within the government. As a result, in a cabinet reorganization of Jan. 12, 1947, three members of the leftist APRA party, which had contributed largely to Bustamante's election, were eliminated. The rightist-APRA cleavage came to a head on Oct. 28, 1948, when an army-led rightist revolt headed by Gen. Manuel A. Odría ousted Bustamente. Odría became provisional president on Oct. 31. He was unopposed in presidential elections held July 2, 1950.

GOVERNMENT AND DEFENSE. Under the 1933 constitution, Peru elects by popular vote every six years a president, two vice-presidents and a bicameral Congress—a Senate of 50 members and a Chamber of 153 members. The president is ineligible to succeed himself. The cabinet, headed by the prime minister, is presidentially appointed, while Supreme Court judges are elected by the Congress from a presidential list. The central government names the executives of the 24 departments.

Military service is compulsory at the age of eighteen. The army had about 32,000 men in 1950. The air force, with 1,935 men and 90 planes in 1940, received 50 U. S. lend-lease craft in 1942. The 1950 navy had two old cruisers, two destroyers, four submarines, six river gunboats and smaller units. There are about 10,000 police and civil guards.

SOCIAL AND ECONOMIC CONDITIONS. Peru, once the cultural center of Spanish South America, has an illiteracy rate of over 50 per cent. Education between 7 and 14 is free, compulsory and state-controlled. Primary schools numbered 10,239 in 1948 and enrolled 908,695 pupils; 103 state secondary schools had 37,256 students. Secondary education is also offered in about 100 schools of religious orders. Five universities had 12,111 students in 1947, including the University of San Marcos, founded in 1551 (oldest in America) with 8,102. In 1946 the government announced an ambitious 5-year plan for building schools.

Most Peruvians are of mixed Spanish and Indian blood. The Indians come from three main stocks—Quéchua, Aymará (Colla) and Chuncho. The relatively large Asiatic population numbered 41,945 in 1940; in 1939 there were 22,738 alien Japanese.

Compulsory social security, established in 1936, covers illness, maternity, disability, old age and death; benefits are steadily being extended.

Land under cultivation is estimated at about 3,617,000 acres, or 12 per cent of the total area, with more than 80 per cent of the population being dependent upon agriculture. About one-eighth of the cultivated area in the irrigated coastal valleys of the central region is devoted to cotton, the most important crop (1949 production: 65,000 metric tons). Sugar (1949: 493,073 tons), rice, tobacco and coffee are exported, while wheat, corn, potatoes, beans, barley and quinoa (a grain similar to millet) are subsistence crops. Stock-raising, pursued in the Pacific highlands and the elevated parts of the Amazon slope, supplies most of the country's meat needs, as well as wool, hides and skins for export. Llamas, used as beasts of burden, and vicuñas and alpacas, noted for their wool, are native to Peru. Livestock in 1948 was estimated at 2,261,995 cattle, 17,287,624 sheep, 962,471 goats and 2,449,746 llamas and alpacas.

Industrialization has been slow. Aside from the copper smelters and oil refineries, the greatest progress has been made in the textile industry, which obtains its raw materials from domestic cotton and wool and from imported silk.

Foreign trade statistics, in millions of soles, are as follows:

	1948	1949	1950
Exports	1,056	2,055	2,892
Imports	1,091	2,692	2,877

Chief exports in 1949 were cotton (29%), sugar (16%) and petroleum and products (14%). Chief suppliers were the U. S. (63%) and Britain (9%); chief customers, the U. S. (29%), Chile (17%) and Britain (15%). Principal imports are machinery and motor vehicles, foodstuffs (especially wheat), iron and steel manufactures, electrical goods and chemicals.

Highway mileage in 1949 totaled 19,468, of which more than a third is hard-surfaced; the Pan-American highway had a total Peruvian length of 1,818 miles. Railway mileage (1947) was 2,612, much of it over difficult territory. Several airlines supply domestic and international service. There are more than 5,400 miles of navigable tributaries of the Amazon in eastern Peru; the chief Amazon port is Iquitos, 2,653 miles from the Atlantic.

The 1951 budget balanced revenue and expenditure at 1,938,600,000 soles. The public debt on Dec. 31, 1949, was 1,621,996,110 soles. Foreign capital has played a large part in Peruvian economic development.

Peru has vast mineral resources. It ranks fourth in world silver production and mines about 25 per cent of the world's vanadium. But mining is second to agriculture, and nearly all of it is in the hands of foreign capital. Petroleum and copper are the most important, with the latter controlled by the American-owned Cerro de Pasco Corporation, which also accounts for much of

the gold and silver output. In 1949, gold production was 119,000 oz.; silver, 10,288,000 oz.; copper, 24,000 metric tons; lead, 57,000 tons; and zinc, 68,000 tons. Petroleum production was 14,796,093 barrels; discovery of rich new deposits has been reported.

Forest products include rubber (1950: 1,479 long tons), balatá, raw quinine, vegetable ivory, mahogany, cedar, dye woods and coca, the source of cocaine. An important industry on the outlying islands is the gathering of guano (bird excrement), a valuable fertilizer used almost entirely domestically.

TOPOGRAPHY AND CLIMATE. The Andes Mountains divide Peru into three sharply differentiated zones. To the west is the coastland, much of it arid, extending for 50 to 100 miles inland, and 1,400 miles long. The mountain area, with peaks over 20,000 feet high, lofty plateaus and deep valleys, lies centrally. Beyond the mountains to the east is the heavily forested slope leading to the Amazonian plains.

The climate ranges from tropical in the eastern lowlands to arctic among the snow-capped peaks. The coastal area has an average annual rainfall of less than 2 inches and temperatures ranging between 55° and 98°. Temperatures range from 75° to 95° in the humid Montaña, and rainfall between 75 and 125 inches annually.

The Philippines (Republic)

Area: 114,400 square miles.
Population (est. 1950): 19,557,000 (Filipino except [1940] 117,461 Chinese, 29,262 Japanese, 8,739 Americans and 11,515 others).
Density per square mile: 170.9.
President: Elpidio Quirino.
Principal cities (census 1948): Manila, 983,906 (capital, chief port); Cebu, 167,503 (seaport); Davao, 111,263 (seaport); Iloilo, 110,122 (seaport); Zamboanga, 103,317 (seaport); Ormoc, 72,733 (seaport).
Monetary unit: Peso.
Languages: English, Tagalog, Bisayan, Spanish, Ilocano, Bicol.
Religions (census 1939): Roman Catholic, 78.7%; Aglipayan (Independent Philippine Catholic), 9.8%; Mohammedan, 4.2%; Protestant, 2.3%; others, 5%.

HISTORY. Fernando Magellan, the Portuguese navigator in the service of Spain, discovered the Philippines on March 16, 1521, and 21 years later a Spanish exploration party named the group of islands in honor of Prince Philip, later Philip II of Spain. Spain retained possession of the islands for the next 350 years, although the Moros in the southern islands continued to harass the Spanish troops until 1850.

The Philippines were ceded to the United States in 1899 by the Treaty of Paris after the Spanish-American War. Meanwhile the Filipinos, led by Emilio Aguinaldo, had declared their independence. They continued guerrilla warfare against U. S. troops until the capture of Aguinaldo in March, 1901. By July, 1902, peace was established in all parts of the islands except those inhabited by Moros.

The first U. S. civilian governor-general was William Howard Taft (1901–04). The Jones Law (1916) provided for the establishment of a Philippine legislature composed of an elective Senate and House of Representatives. The Tydings-McDuffie Act (1934) provided for complete Philippine independence in 1946. Under a constitution approved by the people of the Philippines May 14, 1935, the Commonwealth of the Philippines was inaugurated on Nov. 15 under the presidency of Manuel Quezon y Molina, who was re-elected in 1941.

The Philippines were invaded by Japanese troops on Dec. 8, 1941 (Philippine time), and after the fall of Bataan and Corregidor, President Quezon and his government fled to Washington. The Japanese-sponsored "Philippine Republic" received little support from most Filipinos. U. S. forces led by Gen. Douglas MacArthur reinvaded the islands in Oct., 1944, and after the liberation of Manila (Feb., 1945), Sergio Osmeña, who had succeeded to the presidency on the death of Quezon (Aug. 1, 1944), re-established the government.

Brig. Gen. Manuel A. Roxas y Acuña, who defeated Osmeña in the elections of April, 1946, became first head of the new independent republic, which came into existence on July 4, 1946, as scheduled in the Tydings-McDuffie Act. He died April 15, 1948, and was succeeded by the Vice President, Elpidio Quirino, who pledged continuation of Roxas' domestic program and pro-U. S. foreign policy. He was re-elected on Nov. 8, 1949.

GOVERNMENT AND DEFENSE. Under the constitution of 1935 (as amended in 1940), the Philippines have a republican form of government based on that of the United States. Executive power is exercised by the president, popularly elected for a 4-year term and assisted by a cabinet appointed by him. The popularly elected Congress has two houses—the Senate with 24 members and the House of Representatives with 98 members.

The Philippine army has been reorganized and re-equipped with U. S. assistance. An agreement signed March 14, 1947, provided for the establishment, for a 99-year period, of 23 U. S. military, naval and air bases in the islands. A 5,000-man regimental combat team was dispatched to Korea in 1950. A mutual defense treaty with the U. S. was signed Aug. 30, 1951.

EDUCATION. In the calendar year 1947, an estimated 3,085,302 pupils were enrolled

in public schools, 267,473 in private. Tagalog is the national language but English and Spanish are used throughout the country.

AGRICULTURE AND INDUSTRY. Agriculture is the chief industry. Average size of the farms is 10 acres, but there are many large plantations. Rice (palay) is the staple native food cereal, but production (2,596,000 metric tons in 1950) is insufficient to meet home consumption. The Philippines normally produce about half the world copra supply and a large proportion of the abacá (Manila hemp) supply; they are also a leading source of sugar (1949–50: 653,980 metric tons) and sugar products, normally the chief export. Other crops include sisal, kapok, cotton, corn, tobacco, coffee, rubber, cacao, citrus fruits and bananas. In the crop year 1949–50, 780,110 tons of copra, 26,400 tons of tobacco and 82,180 tons of abacá were produced. Livestock in 1950 included 1,902,920 carabaos, the farmers' all-purpose animal, 698,060 cattle, 206,140 horses and 3,899,130 hogs.

Industry had made some progress prior to World War II, but private manufactures were still in their infancy. Industrial establishments suffered serious damage as a result of the war. A start has been made in sugar, rope, cigar, cigarette and furniture factories, lumber and rice mills, and modern factories producing beverages, perfumes, cosmetics and other consumer's goods. Preparation of fine embroideries is an important home industry.

FOREIGN TRADE. Statistics of trade, in millions of pesos, are as follows:

	1948	1949	1950
Exports	638	512	665
Imports	1,136*	1,137*	712

* Excluding surplus property and relief shipments.

In 1950, the chief exports were copra (40%), sugar (15%), abacá (12%), desiccated coconut (7%) and coconut oil (6%). Leading imports were cotton and manufactures (14%), petroleum products, iron and steel and manufactures and grain. The U. S. supplied 73% of the imports and took 72% of the exports in 1950.

FINANCE. The 1951–52 budget estimated expenditure (ordinary and extraordinary) at 524,147,265 pesos, revenue at 494,651,000 pesos. In 1950–51, expenditure was 428,398,850 pesos; revenue, 466,744,941 pesos, including a U. S. loan of 66,200,000 pesos and one of 22,000,000 pesos from the World Bank.

Chief sources of revenue are excise taxes and the business occupation taxes. The total bonded indebtedness on Mar. 31, 1948, was 33,938,051 pesos. In Apr., 1946, the U. S. Congress appropriated $520,000,000 for the rehabilitation of the Philippines.

COMMUNICATION. Transportation facilities suffered especially severe damage during World War II. The inter-island trade —extremely important because of the makeup of the archipelago—is served by vessels licensed for domestic, coastwise and bay and river traffic. The port of Manila has ample facilities for ocean-going vessels. According to *Lloyd's Register*, the merchant marine had 90 vessels (100 tons and over) of 144,234 gross tons on June 30, 1950.

Railway mileage (1949) totaled 613, most of which (540 mi.) was on Luzon. Highways totaled 14,933 miles in 1946. Air transportation has assumed an important place in inter-island communication.

MINERALS, FORESTS AND FISHERIES. The Philippines possess large but relatively undeveloped mineral resources. Most important are gold, silver, iron ore, copper ore, chromite, manganese ore, lead and zinc. Petroleum formations are also known to exist. In 1950, 333,991 ounces of gold, 216,034 ounces of silver, 10,384 metric tons of copper concentrates, 208,665 tons of chromite (refractory), 41,846 tons of chromite (metallurgical), 158,822 tons of coal and 599,095 tons of iron ore were mined.

The forest area is estimated at more than 43,700,000 acres (about 58 per cent of the total area), not including 3,200,000 acres covered with cogón grass, fit for grazing. About 97.5 per cent of the total forest area is government-owned. Lumber production totaled 455,987,000 bd. ft. in 1950; timber, 1,153,487,000 bd. ft.

Of the approximately 1,900 different species of fish, only about 100 kinds are marketed, although a majority are edible. Fish exports are chiefly canned tunas.

TOPOGRAPHY. The Philippines are an archipelago of approximately 7,083 islands lying about 500 miles off the southeast coast of Asia and bounded on the west and north by the South China Sea, on the east by the Pacific, and on the south by the Celebes Sea. They extend north and south about 1,152 miles and east and west about 688 miles. The northernmost island, Y'Ami, is 65 miles from Formosa, while the southernmost, Saluag, is 30 miles east of Borneo. Only 466 of the islands have an area of more than one square mile, and only 2,441 have names. The largest islands are Luzon in the north (40,814 sq. mi.), Mindanao in the south (36,906 sq. mi.), Samar (5,124 sq. mi.), Negros (4,903 sq. mi.), and Palawan (4,500 sq. mi.). The islands are the tops of an irregular, submerged mountain chain which is largely of volcanic origin. The plains lying amid the mountains are the most densely populated portions of the islands, except in Cebu, where the people live mostly on the coastal plain. Extensive drainage systems are provided by the numerous short rivers.

CLIMATE. The temperature is warm

throughout the year, averaging 80°, with only slight variations. Rainfall averages about 90–100 inches annually, with the wettest season occurring from June or July through October. Typhoons, often causing severe damage, originate in the Pacific and strike the islands from the east and southeast before curving north.

Poland (Republic)

(Rzeczpospolita Polska)

Area: 119,703 square miles.
Population (census 1950): 24,976,926.
Density per square mile: 208.7.
President: Boleslaw Bierut.
Premier: Joseph Cyrankiewicz.
Principal cities (est. 1948): Warsaw, 586,000 (capital); Lódz, 576,000 (industrial center); Kraków, 301,000 (trading center); Wroclaw (Breslau), 299,000 (former German industrial center); Poznan, 297,000 (farm products).
Monetary unit: Zloty.
Language: Polish (more than 90%).
Religions: Roman Catholic, Jewish, Protestant.

HISTORY. A victim of aggression and partition throughout the ages, Poland found history repeating itself in World War II. Her area was reduced from that of California to that of New Mexico, and her population was cut by 11,000,000. Her people reeled from the combined effects of the cruel German occupation, a severe famine and general postwar instability. Her postwar government was in the hands of a small Communist minority which allowed little democratic opposition. Economic reconstruction has continued at a steady pace, but externally Poland remains subservient to the U.S.S.R.

Little of certainty is known about Polish history prior to the end of the 10th century. Early in the 11th century the Polish king, Boleslaus I (the Brave), ruled over Bohemia, Saxony and Moravia. Mongol invasions in 1241 and 1259 were repelled with accompanying devastation. Meanwhile, the Teutonic Knights were erecting in Prussia a state which included part of Poland and barred the latter's access to the Baltic. The Knights were defeated by Wladislaus II (1386–1434) at Tannenberg in 1410 and became Polish vassals under the Peace of Thorn (1466), by which Poland regained a Baltic shoreline.

Poland reached the peak of its power between the 14th and 16th centuries. The 16th century was marked by a constant growth of power on the part of the lesser nobility with a corresponding weakening of the Crown, which became elective in 1572. In succeeding years, Poles scored many military successes against the Russians and Turks. In 1683, King John Sobieski, a famous military leader, turned back the Turkish tide near Vienna.

These successes did not halt the process of decline which resulted from the lack of strong central authority, and Prussia, Russia and Austria were able to carry out a first partition of the country in 1772, a second in 1792 and a third in 1795–96. For more than a century thereafter, there was no Polish state, but the Poles never ceased their efforts to regain their independence. World War I found them fighting unhappily on both sides.

The independence of Poland was formally proclaimed in Nov., 1918, and Marshal Josef Pilsudski was confirmed in office as President. In 1919, Ignace Paderewski, famous pianist and patriot, became the first premier. Russia attacked Poland in 1920 but the Poles, under Marshal Pilsudski and aided by the French, defeated the invaders. On May 12, 1926, Marshal Pilsudski seized complete power in a coup d'état and ruled the country dictatorially until his death on May 12, 1935, when he was succeeded by Marshal Edward Smigly-Rydz.

Despite a 10-year non-aggression pact signed with Germany in 1934, Hitler attacked Poland on Sept. 1, 1939. Russian troops invaded from the east Sept. 17, 1939, and on Sept. 28 a German-Russian agreement was signed dividing Poland between Russia and Germany. Before leaving Poland, President Ignacy Moscicki resigned, designating as his successor W. Raczkiewicz; the latter formed a government-in-exile in France with Gen. Wladyslaw Sikorski as premier; this government moved to London after France's defeat in 1940. All of Poland was occupied by Germany after the Nazi attack on the Soviet Union in June, 1941. On July 30, 1941, Poland concluded an agreement with the U.S.S.R. voiding all German-Soviet agreements effected after Sept. 1, 1939.

The legal Polish government soon fell out with the Russians, however, and in July, 1944, a Communist-dominated Polish Committee of National Liberation received Soviet recognition. Moving to Lublin after that city's liberation, it proclaimed itself the Provisional Government of Poland on Dec. 31, 1944. After almost six months' negotiations, some of the former members of the Polish Government in London joined with the Lublin government to form the Polish Government of National Unity on June 28, 1945. Great Britain and the U. S. recognized this government on July 5, 1945, and withdrew recognition from the London government.

Democratic participation was negligible in the new government, which had adhered strictly to Soviet foreign policy and pursued a program of internal socialization. The government bloc controlled by the small Communist minority won a sweeping victory in the Jan., 1947, elections, which

gave little opportunity to the opposition for campaigning or voting.

On Aug. 2, 1945, in Berlin, Prime Minister Attlee, President Truman and Generalissimo Stalin established a new *de facto* western frontier for Poland, along the rivers Oder and Lausitzer Neisse, pending the final peace treaty. On Aug. 16 the Soviet Union and Poland signed a treaty delimiting the Soviet-Polish frontier. Under these agreements Poland was shifted westward. In the east it lost 69,860 square miles with 10,772,000 inhabitants; in the west it gained (subject to final peace conference approval) 38,986 square miles with a prewar population of 8,621,000. By 1948 all Germans in the latter area had been expelled and replaced with Poles who lived formerly in the territory ceded to the U.S.S.R., or in Germany or other countries.

GOVERNMENT AND DEFENSE. Poland is a republic headed by a president chosen for a seven-year term by the Parliament, which consists of 442 members popularly elected for a seven-year term. The administration of the government is carried on by a council of ministers headed by the premier.

The interim Constitution approved by Parliament on Feb. 20, 1947, provides for a 5-member State Council with far-reaching powers and gives the cabinet wide powers when Parliament is not in session.

Poland's army in late 1950 numbered about 510,000, organized along Soviet lines with Soviet assistance and matériel. Numbers of security troops organized in paramilitary formations maintain internal order under the direction of the Interior Ministry. In 1951 the navy had 2 destroyers, 4 submarines and some minesweepers and coastal craft.

SOCIAL AND ECONOMIC CONDITIONS. In the school year 1948–49 there were 22,131 primary schools with 3,241,046 pupils. Secondary schools numbered 844 with 338,003 pupils. The three pre-1939 state universities of Warsaw, Kraków and Poznan, and the private (Catholic) university of Lublin re-opened in the fall of 1945. New universities have been founded at Lublin, Gdansk (Danzig), Wroclaw (Breslau), Torun and Lódz. Students enrolled in 40 universities and other schools of higher learning numbered 92,444 in 1949. Education is free and compulsory up to 18.

Poland remains essentially an agricultural country: the areas now under *de facto* Polish administration in the west accounted for 25 per cent of Germany's prewar food production. About 70 per cent of postwar Poland is arable land. Much of it has been divided into small farms under the land reform program. Before World War II, Poland exported large quantities of farm products. Farm lands lost to the Soviet Union were considerably larger in area than those gained from Germany; as a result, recent harvests have barely met domestic needs, even though the population has been reduced 30 per cent.

Agricultural production figures in 1950, in metric tons, included wheat, 1,990,000; rye, 5,880,000; oats, 1,980,000; potatoes, 31,000,000; (1949) sugar beets, 5,140,000. Estimated livestock population is still somewhat depleted. On June 30, 1949, there were 2,538,200 horses, 6,365,100 cattle, 5,836,700 hogs and 1,621,200 sheep.

Poland's industrial facilities, although severely damaged during World War II, were not greatly affected by territorial concessions to the U.S.S.R., with the exception of the Lwów area. On the other hand, important German industrial areas, especially Silesia and the city of Stettin, are located in the territories under *de facto* Polish administration. As a result, postwar Poland has a much larger industrial potential. Almost all industries have been nationalized or placed under state control, and a planned economy has been introduced as part of the government's drive to make Poland an industrial nation. Under the impetus of a three-year program of economic reconstruction initiated in 1947, the rehabilitation of Polish industry has been relatively rapid. That program was completed ahead of schedule in 1949, and a new six-year program was launched in 1950. Raw steel production amounted to about 2,510,000 metric tons in 1950.

Foreign trade is largely conducted by government organizations under the terms of numerous trade agreements with other nations. Statistics, in millions of U. S. dollars, are as follows:

	1947	1948	1949
Exports	245*	534*	619*
Imports	453†	519	633

* Excluding special coal shipments to the U.S.S.R. valued at $60,000,000 in each year.
† Including relief, war surplus and reparations shipments valued at $153,000,000.

In 1948 the Soviet Union supplied 29 per cent of imports, followed by Britain (8%), the U. S. (6%) and Germany (6%). The Soviet Union took 21 per cent of exports, followed by Sweden (13%), Britain (8%) and Germany (8%).

Poland stopped publishing detailed data on foreign trade in 1949. Exports in 1949 were unofficially reported to be divided as follows: coal and coke (46%), other raw materials and semimanufactures (18%), and agricultural products (mainly bacon and ham) and consumer's goods (20%). Major imports were machinery, textiles, chemicals and mineral products.

The 1951 budget estimated revenue at about 56,000,000,000 zlotys, expenditure at

52,000,000,000 zlotys. The budget includes the accounts of all administrative and economic units, including schools and hospitals, and is in effect a financial plan of the economy. Under the drastic monetary reform effected in late 1950, prices, wages and taxes were uniformly reduced to 3% of their previous levels, and the zloty was placed at par with the Soviet rouble.

The merchant marine had 118 vessels (of 100 tons and over) of 199,127 gross tons on June 30, 1950. The principal ports are Gdynia, with one of the largest harbors in Europe, Gdansk (Danzig) and the former German port of Stettin. Transportation facilities and rolling stock suffered heavy damage during World War II—a factor still hampering Poland's economic recovery. There are about 61,000 miles of public highway, 4,800 miles of inland waterways and 15,500 miles of railway.

The acquisition of large coal deposits in German Silesia (estimated at more than 5,000,000,000 tons), combined with much larger reserves in the southwestern region, makes Poland one of the world's leading coal producers. The 1950 output was 78,000,000 metric tons, a third of which was produced in former German territory. Iron ore deposits are located in the Kielce and Radom districts and in German Silesia. Production in 1948 was 650,000 tons. Zinc and lead ores are located chiefly in Upper Silesia and the voivodships of Kielce and Kraków. Prewar Poland's principal oil-producing areas, Boryslaw-Drohobycz, are in the territory ceded to the Soviet Union; 1948 production was 1,000,000 barrels (about 25% of prewar). Among other deposits, Poland possesses copper, sulfur, chalk, clay, kaolin, marble and granite.

Forests cover 22 per cent of the land, but important wood resources are located in the territory ceded to the Soviet Union, and current production supplies less than half the annual need.

TOPOGRAPHY AND CLIMATE. Most of Poland is a plain with no natural boundaries except the Carpathian Mountains on the south and the Oder and Neisse Rivers on the west. Pomerania is traversed by a range of low hills, while south of Gdansk is a maze of marshes, sand dunes and muddy lakes which extend into Polish East Prussia (Mazuria). The central Polish plain, 300 to 450 feet above sea level and intersected by great rivers, lies south of the flat country along the Baltic shore. Southern Poland and Silesia are hilly regions, while on the right bank of the Vistula is the plateau of Lublin.

Poland's climate is dependent upon her proximity to the Baltic and to the Carpathian Mountains. Abundant rainfall (annual average: 22.8 in.) is caused by the predominating western oceanic winds. Snowfall is not heavy, but temperatures below zero are not uncommon, and the rivers are generally icebound for two and a half to three months each year.

Portugal (Republic)

(República Portuguesa)

Area: 35,413 square miles.
Population (est. June 30, 1950): 8,618,000 (practically all Portuguese).
Density per square mile: 243.4.
President: Gen. Francisco Higino Craveiro Lopes.
Premier: António de Oliveira Salazar.
Principal cities (census 1940): Lisbon (Lisboa), 1948: 796,227 (capital, seaport); Oporto (Porto), 262,309 (seaport, port wine); Funchal (in Madeira Islands), 54,856 (Madeira wine); Coimbra, 35,437 (university); Setúbal, 35,071 (seaport, sardines).
Monetary unit: Escudo.
Language: Portuguese.
Religion: Roman Catholic.

HISTORY. Rolling and rugged Portugal is about the size of Indiana and, thanks to the days when its sailors and explorers were among the world's most venturesome, has a colonial empire 23 times the area of the homeland. A traditional ally of Britain, Portugal remained neutral in World War II but gave the Allies the right to use vital island bases in the Atlantic. Politically, Portugal is a virtual dictatorship; opposition is officially suppressed, and many phases of the national life are strictly regimented.

Portugal was part of Spain until it won independence in 1143 with Alfonso I as the first king. During the long reign of King John I (1385–1433), a great commercial empire was built, largely through the exploratory hobby of the king's son, Prince Henry the Navigator. Bartholomeu Diaz explored Africa's west coast and reached the Cape of Good Hope in 1488. Vasco da Gama rounded the Cape and discovered the water route to India in 1497–99. Portugal's empire reached its crest about 1540, when it embraced the coast of Brazil, east and west Africa, Malabar, Ceylon, Persia, Indo-China and Malaya.

In 1580–81 Spain and Portugal were joined in a personal union under Philip II of Spain. Portugal revolted in 1640 and set up a new dynasty under John IV, Duke of Braganza, but the country never recovered its position as one of Europe's major powers. In 1806, when Portugal refused to obey Napoleon's orders that all continental ports be closed to British ships, French forces invaded the country but were ousted in 1811 by British and Portuguese forces under the Duke of Well-

ington. The royal family had fled to Brazil in 1807 but following an uprising at home, the king, John VI, returned in 1821.

Brazil declared its independence in 1822 and John's son, Pedro, became emperor of the new state as Pedro I. In 1832, Pedro I, who had abdicated as emperor of Brazil in 1831, returned to Europe and led an uprising with British assistance in favor of his daughter, Maria II, displacing his younger brother, Miguel I, who had been proclaimed king in 1828. The descendants of Maria's marriage with Ferdinand of Saxe-Coburg ruled Portugal until 1910, when King Manoel II was forced into exile by a republican revolt.

On June 19, 1911, the monarchy was abolished, and a republican constitution was introduced. Portugal proclaimed its loyalty to the British alliance upon the outbreak of World War I, and Portuguese troops fought both in Africa and on the Western Front. There was much internal political instability during and immediately after the war.

On May 30, 1926, a revolution led by the army deposed the president and set up a military dictatorship. General António Oscar de Fragoso Carmona became premier and acting president Nov. 29, 1926, and was elected president on March 25, 1928. Dr. António de Oliveira Salazar, who was appointed finance minister in 1928, founded the organization known as the National Union in 1930 and has been premier and dictator since 1932. His regime, while admittedly opposed to liberal or democratic principles, has brought political and economic stability to Portugal. President Carmona was re-elected in 1935, 1942 and 1949. General elections for members of the National Assembly held on Nov. 18, 1945, and on Nov. 13, 1949, were boycotted by the opposition, and the National Union was continued in office. Portugal adhered to the North Atlantic Pact in April, 1949.

President Carmona died April 18, 1951; Gen. Francisco Lopes was elected without opposition to succeed him July 22, 1951.

GOVERNMENT AND DEFENSE. Under the constitution of 1933 Portugal is a corporative republic. The president is popularly elected for a term of 7 years; the National Assembly of 120 members for a term of 4 years. There is also a corporative chamber which handles economic, social and some legislative matters; its 105 members are representatives of local autarchies and of the several branches of social activities —administrative, moral, cultural and economic. The Assembly theoretically may overrule the president's veto by two-thirds vote. The president appoints the premier, who in turn selects the cabinet; the latter is not responsible to the National Assembly.

Military service is compulsory; the initial training period is 6 years, but not all those liable for duty are called up. The army numbered about 64,000 in 1951 (including the Portuguese Legion, a volunteer force); the air force had 575 planes in 1949. The navy in 1950 had 5 destroyers, 6 submarines, 8 sloops and several smaller craft. Naval personnel numbers about 6,000.

SOCIAL AND ECONOMIC CONDITIONS. Compulsory education was introduced in 1911. Elementary schools in 1947–48 numbered 10,411, with 549,712 students. Secondary schools numbered 43, with 20,642 pupils. Private elementary schools were attended by 59,938 pupils; private secondary schools, by 24,674. There were 3 universities (Coimbra, Lisbon and Oporto), with 8,629 students.

Portugal's corporate state has a planned economy in which each producing unit regulates itself in the interest of the nation. Corporate units have been established in agriculture, industry and finance. As an example, the government controls the wine trade by means of a federation of growers and a guild of exporters.

Sixty per cent of Portugal's people are engaged in agriculture. Although wheat is the leading crop, it is insufficient to meet domestic needs, and grain must be imported. One of the world's leading wine-makers, Portugal produces two famous kinds—Port in the vicinity of Oporto, and Madeira in the islands of the same name. In olive oil production, Portugal usually ranks third in the world (production 1950: 98,485 metric tons).

Leading crops in 1950, in metric tons, were wheat, 530,000; barley, 129,000; oats, 125,000; corn, 373,000; and potatoes, 926,000. Wine production in 1950 was about 215,100,000 U. S. gallons (1939–48 average: 241,000,000 gallons).

Livestock in 1948 included 1,000,000 cattle, 4,000,000 sheep and 1,200,000 hogs. Wool production in 1949 was approximately 8,000 metric tons.

Portuguese manufacturing is largely limited to consumer's goods for domestic consumption. Besides the production of porcelain tiles, it includes a sizable textile industry in cotton, wool, silk and linen.

Trade statistics, in millions of escudos:

	1948	1949	1950*
Exports	4,295	4,090	5,303
Imports	10,351	9,043	7,864

* Preliminary.

In 1950, the principal customers were the Portuguese colonies (25%), Britain (17%) and the U. S. (13%); chief suppliers, Britain (17%), the U. S. (16%) and the Portuguese colonies (16%). In 1949, chief exports were textiles (16%), cork (16%), wine (14%) and fish, mainly sardines (10%). Leading imports included

wheat and flour, ships, industrial machinery, raw cotton and iron and steel.

On June 30, 1950, the merchant marine had 318 vessels (100 tons and over) of 536,859 gross tons. Railway mileage in 1949 was 2,240, and highway mileage (1947), 16,080. Portugal is an important international air center.

Recent financial data are as follows (in millions of escudos):

	1949	1950*	1951*
Revenue	5,708	5,272	5,315
Expenditure	5,661	5,268	5,315

* Budget estimate.

The net public debt (Dec., 1948) was 10,231,700,000 escudos.

Mineral resources have not been fully developed, but wolfram, coal, iron ore, copper, manganese, iron pyrites, lead, tin, and other ores are found. The coal output in 1949 was 554,881 metric tons; iron pyrites, 622,925 tons; wolfram, 2,402 tons; lead, 1,100 tons; and kaolin, 19,663 tons. Uranium deposits have been reported.

Portugal is one of the world's leading producers of cork; production in 1948 was 140,442 tons. The production of resin (1947: 53,543 metric tons) and of turpentine (41,561 tons) is also important.

The fishing industry is a basic part of the national economy, employing about 43,000 men and 15,300 boats in 1947. Of special importance is the sardine industry centered at Setúbal, south of Lisbon. The total fishery catch in 1949 was 184,347 metric tons, valued at 882,000,000 escudos.

TOPOGRAPHY AND CLIMATE. Portugal occupies a rectangular area about 360 miles long and 140 miles wide in the southwestern part of the Iberian Peninsula. It is crossed by many small rivers, and also by three large ones which rise in Spain, flow into the Atlantic, and divide the country into three geographic areas. The Minho (Miño in Spain) River, part of the northern boundary, cuts through a mountainous area that extends south to the vicinity of the Douro (Duero) River. South of the Douro the mountains slope to the plains about the Tagus (Tejo) River. The remaining division is the southern one of Alentejo.

The Azores, stretching over a distance of 400 miles in the Atlantic, consist of 9 islands divided into three groups, with total area of 888 square miles. The nearest continental land is Cape da Roca, Portugal, which lies 800 miles to the east. The Azores are an important station on Atlantic air routes, and both Britain and the United States established air bases there during World War II. Madeira, consisting of two inhabited islands, Madeira and Porto Santo, and two groups of uninhabited islands, lies in the Atlantic about 535 miles southwest of Lisbon. Total area of the Madeiras is 314 square miles.

Portugal's climate is equable and temperate, but in the deep valleys where the mountains keep out the cool winds from the Atlantic, it is excessively hot in summer. Lisbon, Coimbra and Oporto all have mean temperatures of 60° to 61.5°. Heavy fogs are common along the coast. Rainfall has been as great as 16 feet a year. It is heaviest in the north and on the Serra da Estrella.

PORTUGUESE COLONIAL EMPIRE

	Area, sq. mi.	Population, est. 1948
AFRICA		
Angola (Portuguese West Africa)	487,788	4,595,000
Cape Verde Islands	1,539	161,000
Mozambique (Portuguese East Africa)	297,654	6,258,000
Portuguese Guinea	13,944	431,000
São Tomé and Principe Islands	372	57,000
ASIA		
Macao	5	389,000
Portuguese India	1,538	667,000
Timor	7,330	440,000

The status of the Portuguese overseas colonies is fixed by the Colonial Act of July, 1930, included in the constitution approved March 19, 1933. Each colony has a governor or governor general, appointed by the council of ministers for an initial 4-year term and responsible to the minister for the colonies at Lisbon. Each colony has financial and administrative autonomy.

ANGOLA (Portuguese West Africa)—
Status: Colony.
Capital: Loanda (population 77,130).
Governor General: José Agapito da Silva Carvalho.
Foreign trade (1950): exports, 2,169,018,000 escudos; imports, 1,665,501,000 escudos. Chief exports: coffee (34%), maize.
Agricultural products (1950): sugar, 52,576 metric tons; cotton, 15,347 tons; sisal, 21,688 tons; coffee (exports), 37,570 tons; maize; palm kernels and oil; peanuts; rice.
Minerals: diamonds (1950: 538,867 carats), lignite, copper.
Forest products: beeswax, timber.
Industries: sugar, palm oil, whale oil, fish oil.

Angola stretches along the west African coast for about 1,000 miles from Belgian Congo to the Cunene River. Outside of a coastal plain varying in width from 30 to 100 miles, the colony is part of the great African plateau. The Angola coast and the Congo River were explored by the Portuguese in 1482–85, and Loanda was founded in 1576. Agreements concluded with the Congo Free State, Germany and France in 1885–86 (later modified in details) fixed the limits of the province except in the southeast, where the frontier was deter-

mined by the Anglo-Portuguese agreement of 1891 and the arbitration award of the King of Italy in 1905. The governor general is assisted by a council of 10 (5 officials and 5 Portuguese nationals). There are 5 provinces.

Angola is primarily an agricultural country. Its varied altitude enables it to produce both tropical and temperate crops. Excellent grazing land exists in many parts of the colony, and there are more than 1,000,000 cattle. Railways total 1,477 miles, and primary roads 21,949 miles. The chief ports are Loanda and Lobito. The great majority of the population are of Bantu-Negro stock, mixed in the Congo district with the pure Negro. Europeans in 1947 numbered 56,000, and half-castes 30,500.

Mean annual temperature at Loanda is 74.3°; the cool season lasts from June to September, the wet from October to May.

CAPE VERDE ISLANDS—Status: Colony.
Capital: Praia (population 6,188).
Governor: Carlos Alberto Garcia Alves Roçadas.
Foreign trade (1948): exports, 237,959,000 escudos; imports, 403,102,000 escudos.
Chief exports: salt, preserved fish.
Agricultural products: coffee, millet, castor oil, oranges, hides.

This group of 14 volcanic islands lying off the west African coast was discovered in 1456 by the Venetian captain Alvise Cadamosto, in the service of Prince Henry the Navigator. The island of São Vicente is an important coaling station on the South American route. The vast majority of the inhabitants are mulattoes (101,284 in 1943) and Negroes (51,070)—descendants of slaves brought to the islands from Africa by early settlers. Public slavery was abolished in 1854, and private slavery in 1876. Europeans in 1940 numbered 5,580.

Summer temperatures are high in the archipelago, ranging up to 90° near the sea. The rainy season lasts from August to October.

MOZAMBIQUE (Portuguese East Africa)—Status: Colony.
Capital: Lourenço Marques (population 68,223).
Governor General: Gabriel Maurício Teixeira.
Foreign trade (1949): exports, 1,176,336,265 escudos; imports, 1,877,806,838 escudos. Chief exports: cotton (21%), copra (14%), sisal, sugar.
Agricultural products (1948): cotton (unginned), 21,079 metric tons; sugar cane, 72,776 tons; sisal, 16,330 tons; vegetable oils; copra; cashew nuts.
Minerals: gold (1948: 5,602 oz.), coal, graphite, mica.
Forest products: mangrove bark, timber.

Mozambique, stretching for about 1,430 miles along Africa's southeast coast, was discovered by Vasco da Gama in 1498, although the Arabs had penetrated into the area as early as the 10th century A.D. It was first colonized in 1505, and by 1510 the Portuguese were masters of all the former Arab sultanates on the east African coast. The boundaries with British Central and South Africa were delimited in 1891, and with Tanganyika Territory in 1886 and 1890. By the Treaty of Versailles, following World War I, Portugal was allotted the Kionga triangle, formerly part of German East Africa. One of the four provinces—Manica and Sofala (87,454 sq. mi.)—was held by the Mozambique Company until 1942, when the Portuguese Government refused to renew its charter.

Agriculture is the chief industry. There are many large plantations, some of which are partially mechanized. Stockraising is hampered by prevalence of the tsetse fly.

Ninety-nine per cent of the inhabitants are native Africans of the Bantu Tribes. In 1945 there were 31,191 Europeans and 11,365 Asiatics. There are 1,349 miles of railway and 16,667 miles of road, mostly unimproved. The chief ports are Lourenço Marques and Beira, which is also the port for Rhodesia. The principal river, the Zambezi, divides the colony in half.

The cool season lasts from April to August, and the rainy season from December to March. On the central coast the mean annual temperature is about 85°.

PORTUGUESE GUINEA—Status: Colony.
Capital: Bissau (population 3,362).
Governor: Raimundo António Rodrigues Serrão.
Foreign trade (1948): exports, 129,114,000 escudos; imports, 185,162,000 escudos.
Chief export: peanuts (39,195 tons).
Agricultural products: peanuts, palm kernels, hides, rice.
Forest products: wax, timber.

This colony, lying on the west African coast and almost surrounded by French West Africa, was discovered in 1446 by the Portuguese Nuno Tristão and was separated from the colony of the Cape Verde Islands in 1879. It consists of a low-lying coastal region and 60 islands off the coast. The country is undeveloped economically, and most of the natives are farmers. There are no railways, but navigable rivers totaling over 1,000 miles are important trade arteries; there are also about 1,650 miles of roads. About two-fifths of the natives are Moslem; there were 1,419 Europeans in 1940. On the coast, temperature varies between 77° in January and 85° in May. The dry season lasts from December to May.

SÃO TOMÉ AND PRINCIPE—Status: Colony.
Capital: São Tomé.
Governor: Carlos de Sousa Gorgulho.
Foreign trade (1948): exports, 219,645,000

escudos; imports, 109,133,000 escudos. Chief exports: cacao, coffee, copra.
Agricultural products: cacao, coffee, coconuts, copra, palm oil.

These volcanic islands, lying in the Gulf of Guinea about 150–175 miles off the west African coast, were discovered by the Portuguese in 1471. Most of the early inhabitants were convicts and Jews from Portugal and slaves from Brazil and the mainland, but the bulk of the present inhabitants are Negro contract laborers from the mainland and Cape Verde engaged to work cacao plantations.

MACAO—Status: Colony.
Capital: Macao (population 148,456).
Governor: Albano Rodrigues de Oliveira.
Chief exports: fish, cement, preserves.
Manufactures: cement, preserves, firecrackers, vegetable oils, metal products.

Macao comprises the peninsula of Macao and the two small islands of Taipa and Colôane on the south China coast, about 35 miles from Hong Kong. Established by the Portuguese in 1557, it is the oldest European outpost in the China trade, but Portugal's sovereign rights to the port were not recognized by China until 1887, and its boundaries are still not delimited. The port has been eclipsed in importance by Hong Kong, but it is still a busy distribution center, and also has an important fishing industry employing over 40,000 people. It is notorious for its opium trade and gambling houses. Portuguese number about 4,000.

PORTUGUESE INDIA—Status: Metropolitan province.
Capital: Panjim (Nova Gôa) (population 12,000).
Governor General: Fernando Quintanilha de Mendonça Dias.
Foreign trade (1947): exports, 50,524,000 escudos; imports, 338,859,000 escudos. Chief exports: fish, spices, copra.
Agricultural products: cashew nuts, coconuts, spices.
Minerals: manganese, salt.

The area consists of Gôa and 3 islands on the Malabar coast of India; Damão and the territories of Dadará and Nagar-Aveli, on the Gulf of Cambay; and Diu, with the continental territories of Gocola and Simbor, on the coast of Gujarat. Gôa, captured in 1510 by the Portuguese, later became capital of the whole Portuguese empire in the east. The native population is largely Hindu.

TIMOR—Status: Colony.
Capital: Dili (population 7,000).
Governor: Cesar Maria de Serpa Rosa.
Foreign trade (1948): exports, 6,326,000 escudos; imports, 51,461,000 escudos. Chief exports: coffee, sandalwood, wax, copra.
Agricultural product: coffee (exports 1947: 2,100 short tons).
Forest products: sandalwood, wax.

Portuguese Timor consists of the eastern half of the island of Timor in the Malay Archipelago, with the territory of Ambeno and two neighboring islands. It was first settled by the Portuguese early in the 16th century. In 1859 the island was divided between Portugal and the Netherlands; later boundary adjustments were made in 1904. Fishing and copra manufacture are important; trade is mostly in the hands of Chinese, Malayans and Arabs. The colony was occupied by Dutch and Australian troops in Dec., 1941, and by the Japanese in Feb., 1942. Both occupations received strong Portuguese protest.

Rumania (Republic)

(Republica Populara Româna)

Area (est.): 91,934 square miles.
Population (census 1948): 15,872,624 (Rumanian, 85.7%; Magyar, 9.4%; German, 2.2%; Jews, 0.9%; others [Turkish, Ruthenian, Bulgarian, Gypsy, Ukrainian] 1.8%).
Density per square mile: 172.7.
Chairman of presidium: Constantin Parhon.
Premier: Petru Groza.
Principal cities (est. 1945): Bucharest, 984,619; census 1948: 1,401,807 (capital); Cluj, 110,956 (Transylvanian industrial center); Jassy, 108,987 (trading center, Moldavia); Timisoara, 108,296 (western commercial center); Ploesti, 105,114 (oil).
Monetary unit: Leu.
Languages: Rumanian, Hungarian, German, Turkish.
Religions (est. 1947): Eastern Orthodox, 81%; Greek Catholic, 9%; Roman Catholic, 7%; others, 3%.

HISTORY. In World War I, Rumania joined the Allies and won enough land at the peace conference to double its size. In World War II, Rumania joined the Axis and lost about half its earlier gains. Its present size is about that of Oregon. Politically, it is dominated by the Soviets.

Most of Rumania was the Roman province of Dacia from about A.D. 100 to 275. From the 6th to the 12th centuries, wave after wave of barbarian conquerors—Vlachs, Bulgars and others—passed over the area. Of the two regions which eventually became Rumania, Walachia was taken by the Turks in 1411, and Moldavia in the 16th century, but both retained semi-autonomy. After the Russo-Turkish War, they went under *de facto* Russian protection in 1774.

The Treaty of Paris following the Crimean War nominally united the two provinces in 1858, and Alexander Cuza was elected Prince of Moldavia and Walachia. In 1866 he was forced to abdicate and was succeeded by Prince Carol of Hohenzollern-Sigmaringen. The Treaty of Berlin recognized Rumania's complete independence in 1878, and in 1881 the principality was

elevated to a kingdom. Rumania's spoils from the Second Balkan War in 1913 included the Black Sea province of Dobruja. The following year King Carol I was succeeded by his nephew, Ferdinand. The gains of World War I, making Rumania the largest Balkan state, included Bessarabia, northern Transylvania and Bukovina. The Banat, a Hungarian area, was divided with Yugoslavia.

In 1926 Crown Prince Carol renounced his rights to the throne, and when King Ferdinand died on July 20, 1927, Carol's son, Michael (Mihai) became king under a regency. However, Carol returned from exile in 1930, was crowned King Carol II, and gradually became a powerful political force in the country. On Feb. 10, 1938, he abolished the democratic constitution of 1923. On June 21, 1940, the country was reorganized along fascist lines, and the fascist Iron Guard became the nucleus of the new totalitarian party. On June 27, the Soviet Union occupied Bessarabia and northern Bukovina. By the Axis-dictated Vienna Award of Aug. 30, 1940, two-fifths of Transylvania went to Hungary. On Sept. 4, the king dissolved Parliament and granted the new premier, Ion Antonescu, full power, after which he abdicated and went into exile with his mistress, Magda Lupescu, whom he married in 1947 when she became gravely ill. The first official act of his son, Michael I, was to confirm Antonescu in his status as head of the state and premier. Rumania subsequently signed the Axis Pact on Nov. 23, 1940, and the following June joined in Germany's attack on the U.S.S.R., reoccupying Bessarabia. Following the invasion of Rumania by the Red Army in Aug., 1944, King Michael led a coup d'état which ousted the Antonescu government. The new cabinet, headed by Constantin Sanatescu, included Socialist and Communist representatives. An armistice was signed Sept. 12 in Moscow.

Sanatescu was replaced on Dec. 6, 1944, by Nicolai Radescu, who in turn yielded on March 6, 1945 to Petru Groza. The latter formed a cabinet made up of members of the National Democratic Front (NDF), a political group formed by Communists, Social Democrats and subsidiary parties. Two opposition members were added to the cabinet Jan. 7, 1946, as one result of the Moscow Conference of Foreign Ministers, and on Feb. 5 the U. S. and Britain recognized Rumania conditional upon the holding of free elections. Elections, held Nov. 19, 1946, resulted in a victory for the Communist-dominated government bloc headed by Groza, who was reappointed premier with an all-NDF cabinet on Nov. 29. Rumania was under complete Soviet political and economic domination. King Michael abdicated on Dec. 30, 1947, and thereafter the nation was declared a "people's republic." Elections held on March 28, 1948, gave 405 of the 414 seats in the National Assembly to the Communist-dominated government bloc.

GOVERNMENT. In 1948 the Grand National Assembly adopted a Soviet-type republican constitution, under which virtually all the powers formerly vested in the king are exercised by a 19-member presidium of the National Assembly. Executive power is vested in the cabinet, and legislative power in the unicameral Assembly.

PEACE TREATY OF 1947. The Paris peace treaty ratified on Sept. 15, 1947, confirmed the *de facto* cession to the Soviet Union of Bessarabia and northern Bukovina, the return to Rumania from Hungary of northern Transylvania (thus annulling the Vienna Award of 1940) and the cession of southern Dobruja to Bulgaria. In addition, Rumania was required to pay reparations in kind in the amount of $300,000,000 (reduced to $225,000,000 by the U.S.S.R. in 1948) to the Soviet Union over a period of eight years. She also was to make compensation in lei to the amount of two-thirds of the original value of Allied property damaged or destroyed in Rumania.

The treaty limited the strength of the Rumanian armed forces as follows: army 125,000 men, navy 5,000 men and tonnage of 15,000, air force 8,000 men and 150 planes. The Soviet Union has the right to maintain line-of-communication troops in Rumania until a treaty with Austria becomes effective. The armed forces are being reorganized and re-equipped with Soviet assistance.

Despite treaty limitations, the total of Rumanian armed-forces personnel was estimated at almost 300,000 in 1951.

SOCIAL AND ECONOMIC CONDITIONS. Education is free and compulsory. In 1949 there were 19,000 elementary schools. There are four universities—at Bucharest, Jassy, Cluj and Timisoara. Students in 1949 were 24,000. The state Church, governed by a Holy Synod, is Eastern Orthodox.

Rumania is predominantly agricultural, with about 80 per cent of the population engaged on the soil. In wheat, rye and other grains, it is one of the richest countries of southeastern Europe. In 1947 the largest acreage was devoted to corn (production: 5,279,000 metric tons) and wheat (1,280,000 tons). Other crops are flax, hemp, fruit, vegetables, potatoes, sugar beets, sunflower seeds, tobacco and grapes. Stockraising is also important. In 1947, there were 3,047,964 cattle, 7,084,633 sheep and 1,405,726 hogs. Wool production in 1949 was 14,000 tons.

Agrarian reform measures effected in 1945 provided for the distribution of estates over fifty hectares (123.6 acres) in lots of twelve and one-half hectares to each peasant. Collectivization was not included

in the program, but all cattle and implements became the outright property of the State, for lease to farmers. Collectivization was started in 1949, but progress has not been rapid.

Rumania is poorly developed industrially. The chief industries—flour milling, brewing and distilling—are directly connected with agriculture. However, the iron, steel, metal and machinery industries expanded considerably after the initiation of the rearmament program in 1935. In 1947 there were 28,295 industrial establishments which employed 462,305 workers. The most important industries are food processing, textile, metal, chemical, wood and paper. All but the smallest business enterprises have been completely nationalized.

Exports in 1948 totaled 32,175,000,000 lei and imports 30,016,000,000 lei. Principal exports are ordinarily petroleum products, cereals and cereal products, wood and wood products. Leading imports are iron and manufactures, machinery and motors, vegetable fibers and products. Postwar trade has been carried on almost entirely under bilateral trade pacts, mostly with members of the Soviet bloc.

The Danube, flowing along the southern border for more than 200 miles, is a highly important commercial artery. Transshipment between seagoing vessels and river barges is made at Galati and Braila. The Rumanian Sea and River Navigation Company, with one-fourth of its capital furnished by the U.S.S.R. and three-fourths by Rumania, monopolizes river and sea transport. The principle of freedom of navigation on the Danube for all nations was recognized in the 1947 peace treaty but seems unlikely to be implemented. The principal seaport is Constanta.

Railway mileage in 1948 was 7,000; highway mileage in 1945 was 43,163. The Sovrom Civil Aviation Company, under Soviet management but financed equally by the U.S.S.R. and Rumania, has the monopoly for all civil air transport inside Rumania and to the Black Sea.

The 1951 budget provided for revenue of 433,900,000,000 lei and expenditure of 429,900,000,000 lei.

Postwar inflation was severe, and in Aug., 1947, the leu was stabilized at the rate of one new leu to 20,000 old. Stabilization virtually wiped out the internal debt, which amounted to 79,734,000,000 lei on Mar. 31, 1947. The external debt was 45,226,000,000 lei.

By far the most valuable of Rumania minerals is oil, produced chiefly in the Ploesti region about 35 miles north of Bucharest. In 1939 the output was 45,600,000 barrels, valued at $45,464,450, about 2 per cent of the total world production. In 1949, production was 32,000,000 barrels.

Natural gas from Transylvania is the second most important mineral, coming to 2,106,000,000 cubic meters in 1947. Other important minerals are iron ore (1947: about 91,000 tons), lignite (2,108,000 tons), copper ore, gold and silver. The Russo-Rumanian Oil Company controls all former German oil firms and has a monopoly on new exploitation.

Fisheries on the lower Danube and wood production are also important.

TOPOGRAPHY AND CLIMATE. The Carpathian Mountains divide Rumania's upper half from north to south and connect near the center of the country with the Transylvanian Alps, running east and west. North and west of these ranges lies the Transylvanian plateau, and to the south and east are the plains of Moldavia and Walachia. In its last 190 miles, the Danube River flows through Rumania only.

The Moldavian-Walachian region has hot summers and extreme frosts and blizzards in winter. Variations are less extreme in Transylvania and the Banat. Bucharest's average summer temperature is 72°; winter 27°. In some winters the Danube is ice-bound for as long as three months. Rainfall, heaviest in summer, averages 15–20 inches annually.

El Salvador (Republic)

(República de El Salvador)

Area: 13,176 square miles.
Population (census 1950): 1,889,946 (mestizo, 78%; Indian, 11%; white, 11%).
Density per square mile: 143.4.
President: Oscar Osorio.
Principal cities (census 1950): San Salvador, 160,380 (capital); Santa Ana, 51,676 (coffee, sugar); San Miguel, 26,831 (coffee, sisal).
Monetary unit: Colón.
Language: Spanish.
Religion: Roman Catholic.

HISTORY AND GOVERNMENT. El Salvador is the smallest, most densely populated of Central American nations, and the only one without an Atlantic coast line.

Pedro de Alvarado, a lieutenant of Cortez, conquered El Salvador in 1525. The area was administered as part of Guatemala until the general Central American revolution against Spain in 1821. El Salvador struck out as an independent republic in 1839 after the dissolution of the Central American Union. Its story since then has been largely one of revolution and strife.

In Jan., 1931, the first free election in 20 years brought in Arturo Araujo as president. He was overthrown before the year was over. General Maximiliano Hernández Martínez, his successor, remained in power until May, 1944, when a general strike forced his resignation. The next regime,

also militarist-led, lasted only five months, and was succeeded March 1, 1945, by a regime headed by Salvador Castañeda Castro, who was ousted Dec. 15, 1948, by a revolutionary junta. Major Oscar Osorio, one of the junta's members, was named president in the March, 1950, elections.

The constitution provides for a president, popularly elected for four years and normally ineligible to succeed himself; also, a one-house legislature of 42 members. The military forces include an army limited to 3,000, a militia, a national guard and a small air force.

SOCIAL AND ECONOMIC CONDITIONS. With the second lowest illiteracy rate in Central America, El Salvador provides free and compulsory education; both public and private schools are state-controlled. Primary schools in 1948 numbered 1,986, with 106,024 students; intermediate schools numbered 53, with 3,562 students. The national university had 900 students.

The majority of the population is mixed white and Indian, but the governing class is composed chiefly of the white group of Spanish colonial origin.

El Salvador probably is the most intensely cultivated of Latin American nations, with more than 80 per cent of its land planted. Coffee, which accounts for 85 per cent of total exports (1950 production: 89,605 metric tons), is controlled in volume by a commission of government officials and planters. Corn, sugar, beans, rice, tobacco, cacao, indigo, millet and sisal fiber are other products. There is some cattle raising and a few local factories, including a monopoly on henequen bags for coffee.

Exports in 1950 totaled $69,501,512; imports, $47,230,966. Approximately 75 per cent of the trade is with the U. S.

The two railways have approximately 375 miles of track. All-season highways total 1,436 miles, with an additional 2,300 miles of unimproved roads.

The 1951 budget estimated revenue at $42,600,000 and expenditure at $43,900,000. The foreign debt on Dec. 31, 1950, was $10,381,805; there is no internal debt.

Gold, silver, coal, copper, iron, zinc, mercury and sulfur are the nation's chief minerals. Gold production in 1949 (28,103 troy oz.) was valued at $1,009,150; silver production (447,851 oz.), at $326,526.

Forest resources, much smaller than in other Central American states, include dyewood, mahogany, cedar and walnut. El Salvador is a leading source of balsam.

TOPOGRAPHY AND CLIMATE. Most of El Salvador is a fertile volcanic plateau about 2,000 feet high. It has several volcanoes, some still active, and many lovely crater lakes. One of these, Lake Ilopango, is a landing place for seaplanes. The mountain ranges along the borders of Guatemala and Honduras give the highlands an almost temperate climate, but the lowlands are often hot and sultry. Temperatures at San Salvador range from about 59° (average daily low) in January to 85° (average daily high) in December; these are the two coolest months. The rainy season lasts from May to October.

San Marino (Republic)

Area: 38 square miles.
Population (1950): 12,780 (mostly Italian).
Density per square mile: 336.3.
Executive: two regents selected every six months by the Grand Council.
Principal town: San Marino (est. pop. 2,000) (capital).
Monetary unit: Lira.
Language: Italian.
Religion: Roman Catholic.

San Marino, the oldest and smallest republic in the world, is one-tenth the size of New York City. It is entirely surrounded by Italy, in the Apennines near Rimini. According to tradition, San Marino was founded about A.D. 350 and had good luck for centuries in staying out of the interminable wars and feuds on the Italian peninsula. The Pope recognized its independence in 1631.

San Marino hires its police and judges from Italy. It no longer confers titles for a consideration, but it does derive much revenue from the exporting of its postage stamps, which are changed often to keep philatelists buying. Other exports are barley, wine and cattle, as well as building stone from Mount Titano.

Executive power is exercised by regents, two of whom are appointed every six months from the popularly-elected Grand Council. There are several primary schools and a high school.

San Marino is linked with Rimini on the Adriatic by a 20-mile electric railway.

Siam. See Thailand

Spain (Nominal Monarchy)

(España)

Area: 194,945 square miles.
Population (census 1950*): 28,286,518 (Spanish, Basque, Catalan).
Density per square mile: 145.1.
Chief of State: Francisco Franco y Bahamonde.
Principal cities (census 1950*): Madrid, 1,609,524 (capital); Barcelona, 1,205,509 (chief port; textiles); Valencia, 509,075

(silk, oranges); Sevilla (Seville), 376,627 (wines, iron ore); Málaga, 261,162 (seaport); Zaragoza (Saragossa), 261,084 (rail center).

Monetary unit: Peseta.

Languages: Spanish, Basque, Catalan.

Religion: Roman Catholic.

* Preliminary figures.

HISTORY. Spain, twice the size of Oregon, was once one of the world's great powers. From 201 B.C. to A.D. 406, it was part of the Roman Empire. Then the Goths and the Vandals formed a powerful kingdom, which was partially conquered in the 8th century by the Moors from Africa. The last Moorish stronghold, the kingdom of Granada, fell to the forces of King Ferdinand and Queen Isabella, who were trying to unify Spain, in 1492. In the same year, the Spanish-financed explorer Christopher Columbus was discovering the new world for the Spanish crown.

Charles V (1516–55) became King of Spain and also Holy Roman Emperor. Under his son, Philip II, Spain reached the peak of its power, but the beginning of decline set in with Britain's defeat of the "Invincible" Armada in 1588.

The line of Spanish Hapsburgs ended in 1700, and the War of the Spanish Succession followed. By the Treaty of Utrecht (1713) Spain was forced to accept a Bourbon king, the Duke of Anjou, and lost Gibraltar and all holdings in the Netherlands and southern Italy. Then, while the Spaniards were resisting Napoleon's efforts to establish a Bonaparte line in Spain, most of their colonies in America revolted and became independent. The loss of Cuba, Puerto Rico and the Philippines in the Spanish-American War of 1898 left Spain with only a few scattered possessions in Africa. Neutrality was maintained during World War I.

From 1923 to 1930 Spain was a military dictatorship under General Miguel Primo de Rivera. A wave of republicanism in 1931 forced the abdication of King Alfonso XIII, and a new constitution was drawn declaring Spain to be a workers' republic. Several revolts, strikes and shifts of government kept Spain in political chaos, and on July 18, 1936, the army revolt led by General Francisco Franco burst into civil war. While Hitler and Mussolini helped Franco, Russia helped the Loyalist side. The last Loyalist forces surrendered on March 29, 1939. Spain became a dictatorship under Franco and signed the anti-Comintern pact in 1939.

While Franco shied away from the risk of becoming a belligerent in World War II, he was pro-Axis in sympathy, helped the Axis with supplies, intelligence and services to German U-boats, and even sent the Spanish Blue Division to fight Russia.

Meanwhile, monarchist sympathies remained strong both in and out of Franco's Falange party, and a Spanish Republican "Government-in-exile" was formed in 1945. Yet Franco's position remains strong.

In 1951, the United States made a preliminary agreement for wartime use of Spanish naval and air bases in return for U. S. military and economic aid. On July 19, Franco announced formation of a new cabinet with greater monarchist representation.

GOVERNMENT. Franco is head of the state, national chief of the Falange party, prime minister and *caudillo* (leader) of the empire. Practically, the country is ruled by the cabinet (appointed by Franco), the National Council of the Falange party and, to a lesser extent, the Cortés (parliament). The principal function of the Cortés is the planning and formulation of laws without prejudice to Franco's veto power. Cabinet ministers, party officials, civil governors, university heads, and the presidents of learned bodies become members of the Cortés ex-officio. There is no provision for the introduction of legislation by any of the 466 members.

In a referendum held July 6, 1947, the Spanish people approved a Franco-drafted succession law declaring Spain a monarchy again. Franco, however, is to continue as chief of state and upon his death or incapacity the Government and a Council of the Realm constituted by the law are to nominate as king "that person of royal blood who is most qualified by right," subject to the approval of the Cortés. The law reserves to Franco the right to nominate his own successor, subject also to the Cortés approval by two-thirds vote.

DEFENSE. Franco is commander in chief of the army, navy and air force, each administered by a cabinet minister responsible to him. Military service is compulsory for a period of two years. The standing army, estimated at 450,000 men, is divided into 22 divisions in Spain and four in Morocco. The navy in 1951 had 6 cruisers, 16 destroyers, 6 submarines, 12 frigates and escort vessels and many smaller vessels. Several destroyers and smaller vessels were under construction. The budgetary allotment for defense is about 40 per cent.

EDUCATION, RELIGION AND SOCIAL POLICIES. The illiteracy rate was 20.8 per cent in 1947. Primary education is compulsory and free; religious instruction is permitted. In 1946–47 there were 54,055 public primary schools with 4,359,230 pupils, 118 secondary schools with 203,136 students, 53 normal schools with 25,928 students and (1947) 12 universities with 42,597 students.

Roman Catholicism is the established religion. After the civil war of 1936–39, the church was restored to substantially its pre-republican position; confiscated prop-

erty was returned, religious education was reintroduced, and divorce was banned.

The labor charter promulgated March 9, 1938, defined Spain as a totalitarian and syndicalist state. So-called vertical syndicates have supplanted all union organizations and all other organizations for the protection of the economic interests of productive groups. A branch of production extends "vertically" from the raw material stage through the industries and firms engaged in processing and marketing. Prices, wages and production, and the distribution of merchandise are controlled.

AGRICULTURE. Spain is predominantly agricultural, although there are extensive non-arable areas. The principal land uses, apart from forest, pasture and forage crops, are the production of grain, potatoes, pulse, sugar beets, oranges, grapes and olives. Since the civil war Spain has not recovered balance in production and consumption of foodstuffs. Normally, Spain produces exportable quantities of oranges, lemons, almonds, filberts, raisins and other subtropical commodities. Wine production in 1949 was 378,411,000 U. S. gallons; olive oil production, 387,900 metric tons.

PRINCIPAL CROPS

(thousands of metric tons)

	1948	1949	1950*
Wheat	2,670	2,254	3,382
Barley	1,700	1,128	1,502
Rye	380	405	464
Oats	530	338	506
Corn	600	331	532

* Provisional.

Livestock, also important, included in 1947, 3,808,000 cattle, 19,500,000 sheep, 6,100,000 goats and 5,000,000 hogs. Wool production in 1949 was 35,000 metric tons.

TRADE. Statistics of foreign trade are as follows, in millions of U. S. dollars:

	1948	1949	1950
Exports	361	380	389
Imports	470	454	392

In 1950 the chief customers were the Spanish colonies (24%), the U. S. (15%) and Britain (14%). Leading suppliers were the Spanish colonies (24%), the U. S. (13%) and France (8%). Leading exports were oranges (12%), cotton goods (9%), tomatoes (5%), iron ore and iron pyrites (4%). Main imports were raw cotton, chemical products (especially fertilizer), wheat, petroleum and tobacco.

INDUSTRY. The textile industry, concentrated in Catalonia and normally employing over 300,000 workers, leads all others. The paper and chemical industries are also important. Pig-iron production in 1950 was 656,625 metric tons; steel production, 818,239 tons. On Mar. 31, 1951, 83 vessels of 102,952 gross tons were under construction.

COMMUNICATIONS. The merchant fleet, which suffered severely during the civil war and World War II, comprised 1,145 vessels (100 tons and over) of 1,189,672 gross tons on June 30, 1950, according to *Lloyd's Register*. The highway system is about 80,000 miles. In 1947, there were 7,950 miles of normal gauge (government-owned) and 2,970 miles of narrow gauge railway.

FINANCE. Recent data (budget estimates) are as follows, in millions of pesetas:

	1948	1949	1950
Revenue	15,115	16,071	17,847
Expenditure	15,196	16,629	17,941

The public debt in June, 1948, was 53,891,200,000 pesetas. Deficit financing, the enormous cost of reconstruction and World War II have contributed to persistent inflationary tendencies. The note issue of the Bank of Spain, amounting to 9,300,000,000 pesetas in July 1940, was up to 30,900,000,000 pesetas by March, 1951.

MINERALS. Spain's mineral wealth, second to agriculture in the national economy, yields millions of tons of ore. In 1946 the mining and metallurgical industries employed 220,422 workers; output was valued at 5,003,331,344 pesetas. Following are production figures for 1950, in metric tons: coal and lignite, 12,356,000; iron ore, 2,079,426; lead ore, 45,048; zinc ore, 111,915; iron pyrites, 1,306,859; potash ore, 1,013,242; mercury, 1,786. Spain is also a producer of copper, gold, magnesite, sulfur, tungsten, phosphates, silver and, reportedly, uranium.

FORESTS AND FISHERIES. Spanish forests yield lumber, pine resins, cork and esparto. Some 100,000 persons work in the fishing, canning and related industries. The 1948 catch, principally cod, tunny and sardines, was 533,979 metric tons, valued at 1,777,000,000 pesetas.

TOPOGRAPHY. Spain, less than ten miles from Africa at the closest point, and separated from France by the Pyrenees, is generally a broad plateau sloping to south and east and crossed by a series of mountain ranges and river valleys. Most of the coast line is steep and rocky, with few indentations. The best harbors are on the Galician coast in the north; the broadest coastal plain is on the Gulf of Cádiz in the southwest. The Guadalquivir River in the south is navigable to Sevilla, but most of the others are mountain streams useful only for waterpower. Hydroelectric stations account for 75 per cent of Spain's generating capacity.

CLIMATE. Most of Spain's weather is extreme. Madrid, for example, reaches a high of 110° and a low of 10°. In the southeast, the protection of the Sierra Nevadas makes the climate subtropical. The northeast, with climate much like that of the British

Isles, is the only region with normal rainfall. In the east and southeast, irrigation is requisite to farming.

OUTLYING ISLANDS. Off Spain's east coast in the Mediterranean are the Balearic Islands, which total 1,936 square miles. The largest is Majorca (1,405 sq. mi.). Sixty miles west of Africa in the Atlantic are the Canary Islands (2,804 sq. mi.).

SPANISH COLONIAL POSSESSIONS

Country	Area, sq. mi.	Population, est. 1948
Ceuta, Melilla, Alhucemas, Chaffarinas, and Peñon Velez	82	156,000
Spanish Morocco	7,589	1,082,009
Spanish Guinea	10,900	173,000
Western Sahara, including Ifni and Spanish Sahara	116,200	78,000

SPANISH MOROCCO. See MOROCCO

Sweden (Kingdom)

(Sverige)

Area: 173,341 square miles.
Population (est. Dec. 31, 1950): 7,017,000 (practically all Swedish).
Density per square mile: 40.5.
Sovereign: King Gustavus VI.
Prime Minister: Tage Fritiof Erlander.
Principal cities (est. Dec. 31, 1950): Stockholm, 745,936 (capital); Göteborg, 353,991 (chief port; shipbuilding); Malmö, 192,498 (seaport); Norrköping, 84,939 (textiles); Hälsingborg, 71,718 (Baltic seaport).
Monetary unit: Krona.
Language: Swedish.
Religions: Swedish Lutheran, 99%; others, 1%.

HISTORY. Sweden, one of the most progressive states in social welfare, maintained a precarious neutrality during World Wars I and II and suffered from being virtually cut off from world markets by British and German blockades. On the other hand, nearly everything that Sweden had to sell after 1939 was eagerly taken by one side or the other, subject only to the difficulties of delivery. As a result, Sweden has been able to follow an independent course, leaning toward the West but still co-operating economically with the Soviet Union and its satellites.

Refusing still to abandon its neutrality, Sweden did not join the North Atlantic alliance in the spring of 1949.

Although the ancestors of today's Swedes lived in the area as long as 5,000 years ago, little is known of Sweden before the 10th century. Before 1100, King Olaf Sköttkonung had united Sweden into a strong nation and established Christianity. In 1397 Sweden was united with Norway and Denmark under the Union of Kalmar. After the murder of several prominent Swedes by Christian II of Denmark in 1520, Sweden revolted under the leadership of Gustavus Vasa. Gustavus, elected king in 1523, founded the modern Swedish state and was the first European monarch to break relations with the Pope.

By the Treaty of Westphalia (1648) which concluded the Thirty Years' War (during which Gustavus Adolphus scored a number of brilliant military successes), Sweden acquired important German areas, including large portions of Pomerania. In 1700, Poland, Denmark and Russia united against Sweden. When peace was finally concluded in 1721, Sweden gave up Livonia, Estonia, Ingria and parts of Finland. Sweden participated in the coalition against Napoleon (1805–07) but in 1809 Finland was lost to Russia. Following the ouster of King Gustavus IV in 1809, a constitutional law still in effect was adopted, after which Charles XIII, uncle of Gustavus IV, was elected king. Since Charles XIII was childless, one of Napoleon's marshals, Jean Bernadotte, was elected Crown Prince and took over effective control of the government, succeeding to the throne in 1818 as Charles XIV. By the Treaty of Kiel (1814), Sweden acquired Norway from Denmark in return for Pomerania. The union with Norway lasted until 1905, when it was peacefully dissolved.

Neutrality was maintained through both World Wars. In 1936 Per Albin Hansson formed a Social Democratic ministry which gave way on Dec. 12, 1939, to a national coalition cabinet under his leadership. On July 31, 1945, another wholly Social Democratic cabinet was formed by Hansson, who died in 1946 and was succeeded as prime minister by Tage Fritiof Erlander.

SOVEREIGN. Gustavus VI, born Nov. 11, 1882, married (1) 1905, Princess Margaret Victoria (born 1882, died 1920); (2) 1923, Princess Louise Mountbatten (born 1889). To his first marriage was born Prince Gustavus Adolphus (born Apr. 22, 1906, killed in air crash Jan. 26, 1947), who was married in 1932 to Sibylle, Princess of Saxe-Coburg-Gotha; their offspring include a son, Carl Gustavus, the heir apparent, born April 30, 1946, and four daughters. Gustavus VI became king Oct. 30, 1950, on the death of his father, Gustavus V, who had reigned since 1907.

GOVERNMENT. Sweden is a limited monarchy. Executive and judicial authority is vested in the king alone, but his resolutions must be taken in the presence of the Council of State (cabinet), headed by the

prime minister; the Council is appointed by the king but is responsible collectively to the Riksdag (parliament).

The Riksdag has an upper chamber of 150 members elected indirectly by the provincial and municipal councils for eight years, one-eighth being renewed each year. The lower chamber of 230 members is directly elected by popular vote for four years. There is universal suffrage for men and women over 21. The king has the right to initiate legislation and has an absolute veto over all bills except those relating to taxation.

Standings in the lower chamber (elections of Sept. 19, 1948): Social Democrat 112, Conservative 23, Agrarian 30, Liberal 57, Communist 8.

DEFENSE. Military service is compulsory from the ages of 20 to 47; the initial training period is 15 months. The king is commander in chief of all the armed forces. The army, numbering about 60,000, with a trained reserve of 600,000, is well-equipped with the latest type weapons, many of them developed in Sweden. The air force has 600 planes. The navy on Jan. 1, 1951, had 4 cruisers, 5 coast defense ships, 13 fleet destroyers, 8 escort vessels, 24 submarines, 2 minelayers and numerous smaller craft. Naval personnel numbers about 10,000 in addition to coast artillery, under naval jurisdiction.

EDUCATION. Public elementary education has been free and compulsory since 1842. In 1947–48 there were 550,000 pupils in regular elementary schools and, in 1948–49, 75,032 in state secondary schools. The two universities—Uppsala and Lund—and three other schools of university grade had a total enrollment of 9,742 in 1949. The state also provides a large number of special vocational and continuation schools. The national church is the Swedish Lutheran Church, of which the king is supreme administrator.

SOCIAL WELFARE. The extremely well-developed co-operative movement is a powerful factor in the country's economic life. The co-operatives account for about 10 per cent of the total retail trade and more than 20 per cent of the grocery business. Social legislation, also well-advanced, includes unemployment relief, loans and grants for housing, medical care, care of the indigent and the aged, and a public works program to curtail unemployment. The federation of trade unions had 1,147,015 members in 1947—about one-sixth of the population.

AGRICULTURE. Grain, hay, potatoes and sugar beets are products of the broad fertile plains of the south; cattle raising and dairy farming predominate in the north. Production of major crops in 1950 was as follows, in metric tons: wheat, 739,000; rye, 244,000; corn, 210,000; oats, 807,000; mixed grains, 654,00; sugar beets, 1,978,000; potatoes, 1,734,000. The 1950 livestock census showed 439,757 horses, 2,648,189 cattle, 279,167 sheep and 1,346,146 hogs. Butter production in 1950 was 108,571 tons; cheese, 51,517 tons; milk, 4,900,000 tons.

INDUSTRY. Industrial establishments in 1948 numbered 17,490 with 806,000 workers. The highly specialized machine industry produces separators, motors, electrical machines and apparatus, agricultural machinery, ball bearings, telephone equipment and harbor works. Pig iron production in 1950 totaled 785,000 metric tons; and steel ingots and castings, 1,440,000 tons. There are also large woolen, glass and porcelain industries. Shipyards build for both Swedish and foreign fleets; 67 vessels of 302,035 gross tons were under construction on March 31, 1951. The timber and woodworking industries are extensive. The match industry is a single trust which covers the whole world and, with the help of British and American capital, monopolizes production in many countries.

TRADE. Statistics of foreign trade are as follows, in billions of kroner:

	1948	1949	1950
Exports	3.98	4.25	5.71
Imports	4.95	4.34	6.12

Leading exports in 1950 were wood pulp (20%), machinery and vehicles (20%), wood and manufactures (12%) and paper and manufactures (11%). Leading customers were Britain (14%), Germany (13%), Norway (9%) and the U. S., Denmark and the Netherlands (each 6%). The chief suppliers were Britain (20%), Germany (11%), the U. S. (9%) and France (6%).

COMMUNICATIONS. On June 30, 1950, the merchant marine comprised 1,271 ships (100 tons and over) of 2,048,033 gross tons, largely efficient motor vessels. The highly developed railway network totaled 10,475 miles in 1948, and there were (1949) 55,900 miles of highway, mostly improved. By means of ferry steamers, Swedish state railways are connected directly with both Germany and Denmark. Telephones in 1951 numbered 1,678,500 (239 per 1,000 persons), making the telephone system second only to the United States on a per capita basis. Airlines flew 5,500,000 miles on domestic routes in 1949 and carried 145,845 passengers.

FINANCE. The ordinary budget (1951–52) provided for revenue of 5,708,000,000 kr. and expenditure of 5,367,000,000 kr.; the surplus was to be used for capital expenditure. The public debt was 12,073,000,000 kr.

on Dec. 31, 1950. The Riksbank (National Bank of Sweden), belonging entirely to the state, is the sole bank of issue.

MINERALS. Sweden's high-grade iron ore deposits are among the world's richest. Those in central Sweden produce principally for domestic use, while the ones in Lapland to the north are worked largely for export, with much of the output being shipped through the Norwegian port of Narvik. Production in 1950 was 13,611,000 tons. Gold production was 48,000 troy oz. Other major minerals are copper (26,839 tons), lead (16,681 tons), arsenic ore (72,000 tons), manganese ore (11,847 tons), pyrite ore (407,000 tons), zinc ore (62,000 tons) and silver (656,000 oz.). Coal production (500,000 tons a year) is comparatively small; imports of nearly 8,000,000 tons a year are therefore necessary. Deposits of uranium have been reported. Wood and peat are extensively used as fuel. Sweden's many waterfalls have a potential of 13,000,000 kw., of which 2,800,000, or 21%, had been developed by the end of 1948. The largest hydroelectric works are state-owned.

FORESTS AND FISHERIES. About 60 per cent of Sweden is forested, mostly in pine, and there are vast forest products industries in the north. Sweden supplies a large percentage of the world's mechanical and chemical pulp. In 1949, 2,886,000 metric tons of wood pulp were produced, and, in 1950, 635,000 tons of paper, 191,000 tons of cardboard and 354,000 tons of newsprint.

The average annual catch of fish is about 140,000 tons, half of it in small Baltic herring. Cod, mackerel and sprat also are taken in the Baltic, and the inland lakes and rivers are well stocked with salmon, trout and perch. The catch in 1950 (sea fisheries) was 182,419 metric tons, valued at 104,330,000 kr.

TOPOGRAPHY. Sweden, with extreme length of about 990 miles and breadth of 250 miles, slopes eastward and southward from its peak elevation in the Kjölen mountains along the Norwegian border. In the north are mountains and many lakes. To the south and east are central lowlands, and south of them are fertile areas of forest, valley and plain. Along Sweden's rocky coast, chopped up extensively by bays and inlets, are many islands, the largest of which are Gotland (1,220 sq. mi.) and Oland (519 sq. mi.). The country is landlocked to the north.

CLIMATE. Sweden's climate is diversified. The warmest month is usually July, with a mean temperature of 62° in Stockholm. February is the coldest month, with a mean average below 32° for all Sweden (25.7° at Stockholm). Average annual rainfall in the north is 16.5 inches; in the south, 22.5 inches.

Switzerland (Republic)

(Schweiz-Suisse-Svizzera)

Area: 15,940 square miles.

Population (census 1950): 4,714,992 (Swiss, 91.2%; German, 3.6%; Italian, 3.1%; French, .9%; others, 1.2%—figures by place of birth).

Density per square mile: 295.8.

President (1951): Eduard von Steiger.*

Principal cities (census 1950): Zürich, 390,020 (textiles, banking); Basel, 183,543 (rail center, Rhine port); Bern, 146,499 (capital); Geneva, 145,473 (intellectual center).

Monetary unit: Swiss franc.

Languages: German, 71.9%; French, 20.4%; Italian, 6.0%; Romansch, 1.1%; others, .6%.

Religions: Protestant, 57%; Roman Catholic, 41%; Jewish, .4%; others, 1.6%.

* The vice president ordinarily becomes president the next year. Vice president in 1951: Karl Kobelt.

HISTORY. Switzerland, twice the size of New Jersey, is a tourist mecca, but its rugged scenery is more than a commercial asset. Europe's aggressors for centuries, right up through World War II, have usually left Switzerland in peace, largely because of its formidable natural barriers.

Swiss history is principally the story of the drawing together of various fiefs of the Holy Roman Empire into a single union for common defense. The process began in 1291, with the cantons of Uri, Schwyz and Nidwalden as the nucleus. Over the next 300 years, ten new cantons entered the federation, which nominally remained part of the Holy Roman Empire until the Treaty of Westphalia gave it independence in 1648.

The French revolutionary army succeeded in occupying Switzerland in 1798 and organized it as the Helvetic Republic, but Napoleon restored the federation in 1803. The Congress of Vienna (1815) declared Switzerland an independent, neutral state in perpetuity, and fixed the nation's borders as they exist today. Out of the brief Swiss civil war of 1847 came the democratic constitution of 1848, which was influenced by the U. S. constitution.

Switzerland maintained strict neutrality in World Wars I and II, during which its diplomatic delegations represented the interests of many of the belligerents. Both sides bombed several Swiss cities by mistake in World War II. Switzerland was a center of both Axis and Allied espionage and counter-espionage during the war.

GOVERNMENT AND DEFENSE. Since the adoption in 1874 of their present constitution, the Swiss have had a federation of 22 sovereign cantons. Each canton has its own legislature, executive and judiciary departments, with the right of veto over federal legislation through referendum.

The Federal Assembly has two houses—a Council of States of 44 members, two

from each canton, and a National Council of 194 members elected for four-year terms. The seven members of the cabinet (Federal Council) are elected for four years by the Federal Assembly, which also elects the Swiss president from among its own members for a period of one year. The federal government is supreme in matters of war, peace and treaties, and regulates the army, railroads, postal service, mints and national bank note issues.

In peacetime, the highest Swiss army officer is a colonel. In wartime a commander in chief is named with rank of general. Since the army is a national militia, it maintains no standing forces, but military service is compulsory from the ages of 18 to 60, with an initial training period of about three months and an 11-day refresher course once a year. The force of men trained and physically fit is about 650,000. The air force has about 5,000 personnel and 400 planes, maintained under the general staff.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory, free and locally controlled. In 1947–48, primary schools had 425,000 pupils, and secondary schools about 75,000. There are seven universities, with 13,195 students in 1948–49.

Religious freedom is guaranteed under the constitution. German, Italian and French were recognized as national languages in 1874, and Romansch, a dialect of the Alpine regions, was also made official in 1937.

With nearly a fourth of its land unproductive, and with half of it in pasture or forest area, Switzerland is dependent on imports for food supply. Wheat, potatoes, fruits, oats, barley, rye, sugar beets and grapes are grown, but stockraising and dairy farming account for three-fourths of the agricultural production. In 1949 there were 1,478,000 cattle, 183,000 sheep, 887,000 hogs and (1948) 187,000 goats.

Production of cheese in 1950 was 57,300 short tons, and that of butter, 20,700 short tons. Approximately 20 per cent of the population is engaged in agriculture. Total value of agricultural production in 1948 was 2,130,500,000 fr.

Manufacturing is the principal economic activity, with more than 40 per cent of the population being sustained by manufactures or mechanical pursuits. Industry is conducted largely in small plants using highly skilled workers. Almost all the raw materials are imported, and products consist almost exclusively of high grade, expensive commodities. In 1949 there were 11,566 factories, with 496,573 workers.

Manufactures include chemical products, machines, watches, textiles, aluminum, precision instruments, lumber, shoes and fine handmade embroidery. Chief agricultural industries are the manufacture of fine cheeses and condensed milk. With its many scenic attractions, Switzerland draws the heaviest and most profitable tourist trade in Europe.

Switzerland is dependent on foreign trade for its prosperity. Trade statistics are as follows, in millions of Swiss francs:

	1948	1949	1950
Exports	3,435	3,457	3,911
Imports	4,999	3,791	4,536

In 1950, the leading customers were the U. S. (13%), Italy (13%), Germany (9%), France (9%) and Belgium (7%). Leading suppliers were the U. S. (14%), France (12%), Germany (11%) and Britain (8%).

The leading exports in 1948 were clocks and watches (24%), other metal manufactures (31%), chemicals (17%) and silk and cotton textiles (17%).

The Rhine, navigable from Basel to the North Sea, is the principal inland waterway. Railways built over rugged terrain, entailing construction of many bridges and tunnels, total about 3,350 miles, mostly electrified. The railroads are of great strategic importance in communications between Germany and Italy. Road mileage totals about 10,500. State aerial service is gradually being developed.

Financial data in millions of Swiss frs.:

	1949	1950	1951*
Revenue	1,563.5	1,831.2	1,577.4
Expenditure	1,551.6	1,530.3	1,901.6

* Budget estimate.

The debt of the Confederation alone (excluding the railway debt) was 8,006,600,000 fr. on Dec. 31, 1950.

Minerals include small amounts of iron ore, gold and coal. Nearly 25 per cent of the country is covered by forest.

TOPOGRAPHY AND CLIMATE. Most of Switzerland is an irregular, mountainous plateau bordered by the great bulk of the Alps on the south and by the Jura Mountains on the northwest. Its greatest length is 226 miles, greatest width, 137 miles. A fourth of its total area is covered by scenic mountains and glaciers. The highest peaks are Monte Rosa (15,217 ft.) and Matterhorn (14,780 ft.), both on the Italian border, and the Jungfrau (13,667 ft.), southeast of Interlaken. The sources of the Rhine, Rhône and Aar are in Switzerland. The country's largest lakes, Geneva, Constance (Boden See) and Maggiore, straddle the French, German-Austrian and Italian borders, respectively. Neuchâtel, 92 square miles, is the largest wholly Swiss lake.

The climate is temperate and varies greatly with altitude. The coldest month (January), for example, averages 31.8° at Basel, which is 909 feet in elevation, and 16.2° at Säntis, with altitude of 8,202 feet. July is the warmest month, with a mean of 66.4° in Basel and 41° at Säntis.

Syria (Republic)

Area: 73,587 square miles.
Population (est. 1950): 3,252,664 (Arab, Armenian, Kurdish, Turkish, French).
Density per square mile: 44.2.
President: Hashem Attasi Pasha.
Premier: Hassan Bey el Hakim.
Principal cities (est. 1950): Aleppo (Alep), 356,000 (northern trading center); Damascus (Damas), 325,000 (capital); Homs, 100,000 (farming, silk); Hama, 85,000 (Bedouin trading center).
Monetary unit: Syrian pound (£S).
Languages: Arabic, Aramaic, French.
Religions: Moslem (Sunni), 69.8%; Moslem (Alawite), 11.0%; Greek Orthodox, 4.6%; Armenian Orthodox, 3.5%; Moslem (Druze), 3.1%; others (Syrian Orthodox and Catholic, Greek and Armenian Catholic, Israelite, etc.), 8.0%.

HISTORY. Ancient Syria was conquered by Egypt about 1500 B.C., and after that by Hebrews, Phoenicians, Assyrians, Chaldeans, Persians and Greeks. From 64 B.C. until the Arab conquest in A.D. 636, it was part of the Roman Empire except during brief periods. The Arabs made it a trade center for their whole empire, but it suffered severely from the Mongol invasion in 1260 and fell to the Ottoman Turks in 1516. Syria remained a Turkish province until World War I.

A secret Anglo-French pact of 1916 put Syria in the French zone of influence. The League of Nations gave France a mandate over Syria after World War I, but the French were forced to put down several nationalist uprisings. In 1930, France recognized Syria as an independent republic, but still subject to the mandate. After nationalist demonstrations in 1939, the French high commissioner suspended the Syrian constitution. In 1941 British and Free French forces invaded Syria to eliminate Vichy control. During the rest of World War II, Syria was an Allied base. Again in 1945, nationalist demonstrations broke into actual fighting, and British troops had to restore order. Syrian forces met a series of reverses while participating in the Arab invasion of Palestine in 1948. The government was overthrown March 30, 1949, in an Army *coup d'état* led by Husni Zayim, who was confirmed in office as president in a national referendum held June 25, 1949. On Aug. 14, Zayim was overthrown and executed by a group of military leaders who installed a coalition cabinet. A constituent assembly was elected on Nov. 15, 1949, to draft a new constitution.

GOVERNMENT AND DEFENSE. The 1950 constitution substantially increased the power of the unicameral legislature, which is popularly elected for four years. It stipulated that the president, who is elected by the legislature for a five-year term, must be a Moslem. Executive power is exercised by the premier and cabinet. Latakia in the northwest and Jebel Druze in the south are part of Syria but have considerable autonomy. The Syrian army is organized around a cadre of *troupes spéciales* transferred from French to Syrian jurisdiction in Aug., 1945.

SOCIAL AND ECONOMIC CONDITIONS. Primary education is compulsory. In 1947 Syria had 1,122 primary schools with an enrollment of 159,268, and 69 secondary schools with 13,435 pupils. There is a university at Damascus. Mutually distrustful religious sects are a serious weakness.

Agriculture and animal breeding are the main industries. Only half the land is arable, and only a third is actually cultivated. Most crops require irrigation. In 1950 Syria grew 830,000 metric tons of wheat and 322,000 tons of barley. Other leading crops include sorghum, olives, cotton, grapes, lentils and tobacco. Stock-raising is important among nomads and semi-nomads.

Exports during the period Mar. 14–Dec. 31, 1950 (after the termination of the customs union with the Lebanon), were £S207,859,000; imports, £S197,933,000. Chief exports were ginned cotton (27%), wheat (21%) and raw wool (11%). Principal customers were the Lebanon (21%), the U. S. (11%) and Italy (10%); chief suppliers, the U. S. (18%), Britain (14%) and France (10%).

In 1946 Syria had 3,966 miles of highway and (1949) 539 miles of railway.

The 1950 budget balanced at £S142,800,000; that for the first six months of 1951, at £S67,750,000; and that for the new fiscal year beginning July 1, 1951, at £S197,000,000. The public debt on Dec. 31, 1950, was £S9,810,940.

TOPOGRAPHY AND CLIMATE. Coastal Syria is a narrow plain. Back of that is a range of coastal mountains, and still farther inland is a steppe area. In the east is the Syrian Desert, and in the southeast next to Jordan is the Jebel Druze Range. The climate is subtropical, with rainfall averaging 50 inches on the coastal range but diminishing to less than four inches in parts of the desert. Summer temperatures at Aleppo range from about 75° at night to 100° during the day; winter temperatures, from freezing to 50°.

Thailand (Siam) (Kingdom)

(Muang Thai)

Area: 198,247 square miles.
Population (est. 1951): 18,836,000 (1937: Thai, 90%*; Chinese, 3.4%; Indian and Malayan, 3.4%; others, 3.2%).
Density per square mile: 95.0.
Ruler: Rama IX (under regency).
Prime Minister: Luang Pibul Songgram.
Principal cities (census 1947): Bangkok (Krung Thep), 827,290 (capital; chief

port); Khonkaen, 590,664 (trading center); Chieng Mai, 534,623 (rice, teak); Chieng Rai, 476,118 (northern trading center).

Monetary unit: Baht.

Languages: Thai (Siamese), Chinese.

Religions (census 1947): Buddhist, 89%; Moslem, 4%; Christian and others, 7%.

* Including about 2,500,000 of Chinese descent born in Siam.

HISTORY. The Siamese first began moving down into their present homeland from the Asiatic continent in the 6th century A.D., and by the end of the 13th century ruled most of the western portion. During the next 400 years the Siamese fought sporadically with the Cambodians to the east and the Burmese to the west. The British obtained recognition of paramount interest in Siam in 1824, and in 1896 an Anglo-French accord guaranteed Siamese independence. In 1909 Siam renounced claims to suzerainty over four Malayan states in return for almost complete cessation of British interference in Siamese internal affairs. Siam declared war on the Central Powers in 1917.

A coup on June 24, 1932, changed the absolute monarchy into a representative government with universal suffrage. Thus shorn of much power, King Prajadhipok abdicated in March, 1935, in favor of his nephew, Prince Ananda Mahidol. After five hours of token resistance on Dec. 8, 1941, Siam yielded to Japanese occupation and became one of the springboards in World War II for the Japanese campaign against Malaya. After the fall of its pro-Japanese puppet government in July, 1944, Siam pursued a policy of passive resistance against the Japanese, and on Aug. 16, 1945, after the Japanese surrender, Siam repudiated the declarations of war it had made against Britain and the U. S. in 1942.

By a treaty signed with Britain and India Jan. 1, 1946, Siam renounced all wartime acquisitions of Malayan territory and agreed that no canal linking the Gulf of Siam with the Indian Ocean would be cut across Siamese territory without British concurrence. A Franco-Siamese agreement of Nov. 17, 1946, provided for the return to Indo-China of a border area ceded to Siam by Vichy France in 1941.

Luang Pibul Songgram, prime minister during the Japanese occupation, seized power in a bloodless coup on Nov. 9, 1947, and although his party was defeated in elections for the Constituent Assembly on Jan. 29, 1948, he retained power and was designated premier on Apr. 15, 1948.

On May 11, 1949, the name Thailand, under which the country was known during World War II, was readopted in place of Siam. King Rama IX, who was born Dec. 5, 1927, second son of Prince Mahidol of Songkhla, succeeded to the Siamese throne on June 9, 1946, when his brother, King Ananda Mahidol, died of a gunshot wound.

GOVERNMENT AND DEFENSE. Thailand is a constitutional hereditary monarchy. Under the constitution promulgated on March 23, 1949 to replace that of 1946, there is a bicameral legislature, with an upper house of 100 members appointed by the king and a lower house of 121 popularly-elected members. During the king's minority or absence, his powers are exercised by a regent who appoints the prime minister, whose cabinet must have the confidence of the legislature.

The 1937 defense act made military service compulsory for a period of two years between the ages of 18 and 30. The army had about 30,000 men in 1951. There was also a militarized police force of about 40,000 men and a fair-sized air force. The navy had 3 coast-defense ships, 4 submarines, 4 frigates and escort vessels and other smaller craft. An infantry battalion, 2 naval vessels and several planes were sent to Korea.

SOCIAL AND ECONOMIC CONDITIONS. Buddhist monasteries throughout Thailand control most of the elementary education in rural districts. In 1948 there were 440 government schools, with 63,581 pupils, 18,670 local public and municipal schools, with 2,081,414 pupils, and 1,501 private schools, with 167,629 pupils. The 5 institutions of higher learning had 10,494 students.

Almost 90 per cent of the population work at agriculture. Rice (1950: 6,684,000 metric tons) is the principal crop, the staple food and the leading export. It is the basis of Thailand's whole economy and the key to its prosperity. Next most important is rubber (exports 1950: 112,176 long tons). Other products include coconuts, corn, tobacco, cotton, sesame, sugar cane and soybeans. Livestock, poor in quality and quantity, is used mainly for hauling. Manufacturing is of little importance, except for native handicraft and food processing. Domestic business is largely controlled by Chinese.

Exports in 1950 amounted to 3,576,259,889 baht; imports, 2,881,206,994 baht. The leading exports were rice (49%), rubber (20%), tin (8%) and teak (4%).

There are good water routes which handle about 80 per cent of all internal traffic. Bangkok, the chief port, 25 miles up the Chaupaya River from the Gulf of Siam, handles about 80 per cent of the foreign trade. Railways under government ownership total 2,032 miles, and in 1948 there were about 3,600 miles of highway. With 14 international airlines using its facilities in 1948, Bangkok is rapidly becoming the hub of commercial aviation in southeast Asia. Domestic route mileage in 1948 was 2,700.

The 1951 budget estimated ordinary expenditure at 1,178,468,662 baht, extraordinary expenditure at 1,320,737,512 baht,

capital expenditure at 998,150,932 baht, and all revenue at 2,500,000,000 baht. The public debt on Dec. 31, 1950, included an internal loan of 332,475,000 baht, an external loan of £1,915,095, rupee credits of 44,296,439 and war surplus credits of U. S. $9,629,406.

There are small deposits of many important minerals, and some precious stones. Only tin, gold, tungsten and salt are in commercial production. Tin output in 1940 was 20,841 tons (10% of the world total), but production was only 10,364 tons (tin-in-concentrates) in 1950.

Almost 70 per cent of Thailand's total land area is forested. Teak, the main forest product, covers over one-third of this area, chiefly in the northern hill country. Production in 1948 was about 65,000 tons. Other forest products are thingan wood, ironwood, ebony, rattan and sticklac.

Fisheries, both ocean and river, ordinarily rank second to agriculture in product value. The average catch of 40,000 tons includes mainly mackerel, as well as anchovies, mollusks and shellfish.

TOPOGRAPHY AND CLIMATE. Thailand, about three-fourths the size of Texas, supports most of its population in the central alluvial plain which is drained by the Chaupaya River and tributaries. The climate is monsoonal, but the full force of the monsoons is broken by the western frontier hills. Rainfall decreases from south to north. Humidity is always high, but temperatures fall as low as 40° in the November–February cool season. Inland temperatures often rise to 100° during the hot season.

Trans-Jordan. See Jordan

Trieste

(Free Territory under U. N. protection)

Area: 293 square miles.
Population (est. 1949): 345,000 (Italian, 85%; Slovene and Croat, 10%; others, 5%).
Density per square mile: 1,177.5.
Principal city (census 1936): Trieste, 237,717.
Monetary unit: Lira, Yugoslav dinar.
Religion: Predominantly Roman Catholic.
Languages: Italian and Slovene (official), Croat.

Focal point of Big Power dispute during the 1946 treaty negotiations, the tiny Free Territory of Trieste on the northeastern Adriatic took existence on Sept. 15, 1947. Soviet Russia had backed Yugoslav claims for the whole Istrian peninsula, including the port of Trieste, an ideal sea outlet for Soviet-dominated Danubia. The U. S. and Britain opposed these claims. A French compromise was adopted which gave Yugoslavia the predominantly Italian cities of western Istria, including the Pola naval base; from the other predominantly Italian parts, consisting of the city and surrounding territory of Trieste, the Free Territory was formed under U. N. protection.

The territory formed part of Austria (Trieste from 1382) before World War I, and Trieste became the strategic port of central Europe and outlet for the trade of the Danube basin. By the treaty of Rapallo (Nov. 12, 1920) between Italy and Yugoslavia, the territory along with all of Istria went to Italy as part of "Italia irredenta." After the German collapse early in May, 1945, Tito's Yugoslav forces occupied the territory, determined to unite it with Yugoslavia. By an agreement of June 9, 1945, most of the area (197 sq. mi.) was put under temporary Yugoslav administration, but a smaller part (96 sq. mi.), including Trieste, was placed under Allied control.

The governor of the Free Territory, who cannot be an Italian or Yugoslav national, is appointed by the United Nations Security Council for a term of five years, after consultation with the Italian and Yugoslav governments. Legislative authority is vested in a popularly elected unicameral Assembly. The Council has not yet reached agreement on the choice of a governor; hence the territory is still administered by Anglo-U. S. and Yugoslav forces within the two zones defined by the peace treaty. The Yugoslav zone has virtually been incorporated into Yugoslavia.

On March 20, 1948, the U. S., Great Britain and France jointly proposed the return of Trieste to Italy. Yugoslavia countered with an offer to yield Trieste if Italy in turn would give up the city of Gorizia, but the Italian government refused.

Turkey (Republic)

(Türkiye Cümhuriyeti)

Area: 296,185 square miles.
Population (census 1950*): 20,902,628 (Turkish, 94%; Greek, 2.2%; Bulgarian, 1.4%; Yugoslavian, .9%; others, 1.5%).†
Density per square mile: 70.6.*
President: Celâl Bayar.
Premier: Adnan Menderes.
Principal cities (census 1950*): Istanbul (formerly Constantinople), 1,000,092 (chief port, commercial center); Ankara (Angora), 286,592 (capital); Adana, 118,000 (agricultural center); Brusa, 100,007 (silk, carpets); (census 1945) Smyrna (Izmir), 200,088 (seaport); Eskisehir, 80,096 (trading center).
Monetary unit: Turkish pound.
Languages: Turkish, Greek, Bulgarian.
Religions: Mohammedan, 98.6%; others, 1.4%.

* Preliminary.
† 1935, by place of birth.

HISTORY. Successor to the once great Ottoman Empire, Turkey is a nation of striking contrasts ranging from the multiracial metropolis of Istanbul to the dreary ranges of Anatolia. It has made marked advances toward modernization and Westernization under the original impetus of the national hero, the late Kemal Atatürk.

The Ottoman Turks first appeared in the early 13th century A.D. Under the leadership of their aggressive sultans, they gradually spread their hegemony over most of the Near East and the Balkans, capturing Constantinople in 1453 and storming the gates of Vienna in the 17th century. At the height of its power, the Empire stretched from the Persian Gulf to the frontiers of Poland and from the shores of the Caspian Sea to Oran in Algeria.

The defeat of the Turkish navy at Lepanto in 1571 by the Holy League and of Turkish forces besieging Vienna in 1683 portended the decline of Ottoman power, reducing Turkey to the status of a pawn in Europe's political maneuvers. Russia moved into the Balkans in the 18th century and made herself official protector of the Balkan Christians. Fear of a Russian drive on Constantinople prompted England and France to declare war on Russia, and the Crimean War (1853–56) followed. As a result of the Russo-Turkish war (1877–78), Bulgaria became practically independent, and Rumania and Serbia threw off their nominal allegiance to the sultan. Further defeats were suffered by Turkey in a war with Italy (1911–12) and in the Balkan Wars (1912–13). Meanwhile, a revolt led by the Young Turks, an organization of youthful liberals, had forced the abdication of Sultan Abdul-Hamid in 1909 and established a constitutional regime.

On Aug. 2, 1914, at the outbreak of World War I, a secret alliance was signed between Germany and Turkey, whose army was advised by a German military mission, and in September the Allies declared war on Turkey. Turkish forces successfully defended the strategic Dardanelles, but British forces seized Palestine, Mesopotamia and Syria; and the Hejaz revolted. By 1918 Allied forces held the territory along the Dardanelles and the Bosporus, and later Greek forces occupied Smyrna and vicinity.

In 1919 the new Nationalist party, headed by Mustafa Kemal, was organized to resist the Allied occupation, and in 1920 a National Assembly elected Mustafa Kemal president of both the assembly and the government. Under his leadership, the Nationalist government was recognized by foreign powers, the Greeks were driven out of Smyrna, and other Allied forces were withdrawn. The present Turkish boundaries (with the exception of Alexandretta, ceded to Turkey by France in 1939) were fixed by the Treaty of Lausanne (1923) and later negotiations. The caliphate and sultanate were separated and the sultanate abolished on Oct. 1, 1922. On Oct. 29, 1923, Turkey formally became a republic with Mustafa Kemal, who took the name of Kemal Atatürk, as its first president. He carried out an extensive program of reform, modernization and industrialization.

The Montreux Convention (1936) abrogated a number of provisions of the Treaty of Lausanne relating to the Straits and authorized Turkey to fortify the former demilitarized zone. Turkey was given sole responsibility for the defense of the area. On Aug. 7, 1946, Soviet Russia proposed in a note to Turkey that defense of the Straits be made a joint Turkish-Soviet responsibility under a revision of the Montreux Convention, but the proposal was opposed by both Britain and the U. S., as well as by Turkey.

General Ismet Inönü was elected to succeed Kemal Atatürk on the latter's death in 1938 and was re-elected in 1939, 1943 and 1946, but was defeated in 1950 and succeeded by Celâl Bayar. On Oct. 19, 1939, a mutual assistance pact was concluded with Britain and France. Turkey followed a neutral course during most of World War II, but on Aug. 2, 1944, she broke off relations with Germany, and on Jan. 3, 1945, with Japan. On Feb. 23, 1945, she declared war on Germany and Japan, but took no active part in the conflict. After the abrogation of the Soviet-Turkish nonaggression pact in March, 1945, Turkey was subjected to Soviet pressure for a share in the control of the Dardanelles. To assist Turkey in effecting modernization necessary for the preservation of its national integrity, the U. S. in 1947 agreed to advance $100,000,000, all of which was to be used for the armed forces or to a lesser extent for economic projects directly related to Turkish defense. Turkey has also received aid under the European Recovery Program.

GOVERNMENT. The constitution, as amended in 1937, defines the Turkish state as "republican, nationalist, populist, étatist, secular, and revolutionary." The president is chosen from the deputies of the National Assembly; his term of office is identical with the life of each Assembly. The 487 members of the Assembly are elected by universal suffrage for a term of four years. According to the constitution, the Assembly exercises the executive power through the president and Council of Ministers (cabinet) appointed by him. It may at any time control the actions of the government and at any time dismiss it.

The Republican People's party, which had been in power since 1923, was overwhelmingly defeated in free elections held May 14, 1950, by the Democratic party. The latter won 408 seats in the assembly, Peo-

ple's party 69, National party 1, independents 9. Centralization is the basis of the governmental system. The pre-republic judicial system, based on Sunni Moslem law, was replaced in 1926 by a new system based on the Swiss civil code.

DEFENSE. Military service is compulsory from 20 to 45; the initial training period is three years. The strength of the army, mobilized since 1939, is about 500,000. Large purchases of modern matériel were made during World War II, and additional armaments were received from the U. S. after the war. The air force, under the direct control of the Turkish General Staff, had a strength of about 1,000 planes in 1950. The navy has 1 battle cruiser, 10 fleet destroyers and 11 submarines, in addition to smaller craft, including a number of former U. S. and British minesweepers. A regimental combat team of 5,000 men was dispatched to Korea in 1950.

EDUCATION. Elementary education is nominally obligatory from 7 to 16. In 1948 there were about 15,000 primary schools with 1,500,000 pupils, and 351 secondary schools with enrollment of 96,900. There were 34 institutions of higher learning with 26,000 students in 1948. The Latin alphabet replaced the Arabic script in 1928.

AGRICULTURE AND INDUSTRY. Agriculture is the principal economic activity, engaging about 65 per cent of the population. Only about 20 per cent of the land is under cultivation, but the government has made great efforts to modernize and improve farming. The most important cash crop is tobacco (1950: 87,000 metric tons) with the best quality coming from the Pontic coast near Samsun and also from Bafra, Sinop and Trebizond. Cotton (1949: 97,000 metric tons, ginned) is grown in the south of Asia Minor while figs come exclusively from the Smyrna region. Principal grain crops, with 1950 production in metric tons, are wheat, 3,872,000; barley, 2,047,000; oats, 316,000; and corn, 628,000. Turkey is a leading exporter of olive oil; the Brusa region and the Ionian coast are the principal areas of cultivation. Opium poppies are grown in the Smyrna, Malatia and Tokat regions.

Turkey is rich in livestock. The most important animal is the goat, of which there were 18,558,000 in 1948, including the valuable Angora which thrives on the uplands of the plateau. There were also 10,279,000 cattle, 1,164,000 horses, 1,711,000 asses and 25,840,000 sheep in 1949. Wool production was 32,000 metric tons.

In 1941 Turkey had 1,052 industrial establishments. Staple industries have been established in iron, steel, textiles, paper, glass, sugar and cement. A large proportion of the factories are government-operated. Istanbul is the major industrial area.

TRADE. Turkey's foreign trade was as follows, in millions of Turkish pounds:

	1948	1949	1950
Exports	551.0	693.9	737.6
Imports	770.1	812.6	799.9

Principal customers in 1950 were Western Germany (21%), the U. S. (17%), Britain (14%) and Italy (6%). Leading suppliers were the U. S. (25%), Western Germany (18%), Britain (11%) and France (5%). Chief exports were raw cotton (27%), tobacco (23%) and fruits, largely sultanas (19%); leading imports, machinery, iron, steel, fuel and oil.

COMMUNICATIONS AND FINANCE. In June, 1950, Turkey had a merchant fleet of 217 vessels (100 tons and over) aggregating 387,830 gross tons. The length of railways (1948) was 4,652 miles, all state-owned. Highway mileage in that year was 26,536.

Governmental expenditure and revenue estimates for the fiscal year beginning Mar. 1, 1951, were £T1,579,758,700 and £T1,344,988,200, respectively. The public debt on Nov. 30, 1949, was £T2,133,000,000.

MINERALS AND FORESTS. Turkey's rich mineral resources are still comparatively unexploited. Deposits of copper in the large field at Arghana, near the Iraq-Syrian frontier, have been estimated at 1,600,000 tons (1949 output: 11,300 metric tons). Turkey is also relatively rich in coal, with large deposits in the Eregli region on the Pontic coast some 150 miles from Istanbul (1949 output: 4,188,000 tons). A virtual world monopoly is enjoyed in meerschaum, found in the Eskisehir district. Other important minerals include chrome, manganese ore, emery and antimony.

Nearly nine per cent of the total area of Turkey in Asia is forest land, covering 25,419 square miles. A large proportion of Eastern Thrace is also under forest, covering 1,648 square miles.

TOPOGRAPHY AND CLIMATE. Turkey is divided into two natural areas by the historic waterway formed by the Dardanelles, the Sea of Marmara and the Bosporus. Turkey in Europe comprises an area about equal to the state of Massachusetts. It is hilly country drained by the Maritsa River and its tributaries. Almost all the population is concentrated in and near the two important towns, Istanbul (Constantinople) and Edirne (Adrianople). Turkey in Asia, or Anatolia, about the size of Texas, is roughly a rectangle in shape with its short sides on the east and west. Its center is a treeless plateau rimmed by mountains. Along the seacoast the elevation drops steeply to a wooded plain some 75 miles wide. On the land frontiers, the belt of forest clothes the foothills of the Taurus Mountains and the Armenian highlands.

Turkey has a great variety of climate. Along the coast from Antioch to the Dardanelles the climate is Mediterranean, with rainy winters and dry summers. Thence to the Bosporus it is transitional to the type of climate with heavy year-round rainfall. Semitropical fruits and tea may be grown in the region beyond Trebizond on the Black Sea. The western plateau has a harsh steppe climate, with cold winters, hot summers and scanty rainfall, while the eastern plateau exhibits a transition from steppe to alpine climate. Istanbul has a mean annual temperature of 57° (maximum 99°, minimum 17°) and average yearly rainfall of 28.3 inches. Rain falls approximately one day out of three.

Union of Soviet Socialist Republics

Area (est.): 8,473,444 square miles* (8,173,666 in 1938).

Population (est. 1945): 192,900,000* (170,467,186 by 1939 census) (Great Russian, 58.4%; Ukrainian, 16.6%; Byelorussian, 3.1%; Uzbek, 2.9%; Tartars, 2.5%; Kazakhs, 1.8%; Armenian, Azerbaijani, Georgian, each 1.3%; more than 100 others, 10.8%).

Density per square mile: 24.9.*

Chairman of Presidium of Supreme Council: Nikolai M. Shvernik.

Premier: Joseph Vissarionovich Stalin.

Principal cities (census 1939): Moscow, 4,137,018 (capital); Leningrad, 3,191,304 (industrial center, shipbuilding); Kiev, 846,293 (industrial center, Ukraine); Kharkov, 833,432 (iron and steel, coal); Baku, 809,347 (oil center, Azerbaijan); Gorki, 644,116 (iron and steel); Odessa (1937), 604,223 (chief Black Sea port); Tashkent, 585,005 (textiles, tobacco); Tiflis (Tbilisi), 519,175 (building materials, leather); Rostov on Don, 510,253 (grain, shipbuilding).

Monetary unit: Rouble.

Languages: See Population.

Religions: Russian Orthodox (predominant), Mohammedan, Roman Catholic, Jewish, Lutheran.

* Including acquisitions since 1939.

HISTORY. With an area almost three times that of the U. S. and a population perhaps one and one-half times larger, the vast Soviet Union has risen in 30 years from a war-stricken agricultural state torn by internecine strife to a great industrial-agricultural federation holding a place second only to that of the U. S. in world power. A police state with a government-owned economy directed by a small Communist minority, the Union successfully absorbed mighty German attacks in 1941–42 and rebounded to drive back into Germany itself.

After the war, with its eastern European satellites drawn together into a solid bloc in opposition to the western democracies, the Soviet Union launched a full-scale political offensive against the non-Communist world, particularly the United States and Great Britain.

Efforts to discredit Anglo–U. S. influence were initially a failure. The western powers countered the Soviet blockade of Berlin with a highly effective "air-lift," completed the unification of western Germany and went on to unite all of western Europe (except Spain) into a solid wall of opposition to Communist aggression through the vehicle of the North Atlantic Pact. Nevertheless, there has been no indication of a change in Soviet plans or aims,

Rulers of Russia Since 1462

	Born	Reigned
Ivan III the Great[1]	1440	1462–1505
Basil III[1]	1479	1505–1533
Ivan IV the Terrible[2]	1530	1533–1584
Theodore I	1557	1584–1598
Boris Godunov	c.1551	1598–1605
Theodore II	1589	1605–1605
Demetrius I[3]	?	1605–1606
Basil IV Shuiski	?	1606–1610
"Time of Troubles"[4]		1610–1613
Michael Romanov[5]	1596	1613–1645
Alexis I	1629	1645–1676
Theodore III	1656	1676–1682
Ivan V[6]	1666	1682–1689
Peter I the Great[6]	1672	1682–1725
Catherine I	c.1684	1725–1727
Peter II	1715	1727–1730
Anna	1693	1730–1740
Ivan VI	1740	1740–1741
Elizabeth	1709	1741–1762
Peter III	1728	1762–1762
Catherine II the Great	1729	1762–1796
Paul I	1754	1796–1801
Alexander I	1777	1801–1825
Nicholas I	1796	1825–1855
Alexander II	1818	1855–1881
Alexander III	1845	1881–1894
Nicholas II	1868	1894–1917
PROVISIONAL GOVERNMENT		
Prince Georgi Lvov (premier)	1861	1917–1917
Alexander Kerensky (premier)	1881	1917–1917
U.S.S.R.		
Nikolai Lenin (premier)	1870	1917–1924
Joseph Stalin (premier)[7]	1879	1924–

[1] Grand Duke of Muscovy.
[2] First tsar of Russia; had himself crowned as such in 1547.
[3] Also known as Pseudo-Demetrius. His origin is obscure. He claimed to be Ivan IV's youngest son, Demetrius, who had been murdered in 1591. Demetrius I conquered Moscow in 1605 but was killed in 1606. From 1607–12, two other men, posing as Demetrius, attempted to capture Moscow but failed.
[4] During this period, the throne remained empty.
[5] First of the Romanov line, which lasted until the Russian Revolution. Michael was the grandnephew of Ivan IV.
[6] Ruled jointly until 1689, at which time Ivan V was deposed.
[7] As General Secretary of the Communist Party, Stalin was actual head of the Soviet Union from 1924–41. In 1941, he became premier.

and the Korean war was interpreted by many in 1950 as the start of widespread Communist military aggression to supplement the political "cold war." Evidence of an atomic explosion in the Soviet Union in the summer of 1949 was reported by President Truman on Sept. 23, 1949.

The recorded history of Russia begins with the perhaps legendary figure of the Viking Rurik, who according to tradition came to Russia in A.D. 862 and founded the first Russian dynasty in Novgorod. The various tribes were united by the spread of Christianity in the 10th and 11th centuries; Vladimir "the Saint" was converted in 988. During the 11th century the grand dukes of Kiev held such centralizing power as existed. In 1240 Kiev was destroyed by the Mongols, and the Russian territory was split into numerous smaller dukedoms, out of which three large centers emerged—Galicia, Moscow and Novgorod. The early dukes of Moscow extended their dominions through their office of tribute collector for the Mongols.

In the late 15th century, Ivan III, the reigning duke, acquired the rival kingdoms of Novgorod and Tver and threw off the Mongol yoke. Ivan IV, the Terrible (1533–84), first Muscovite duke to assume the title of tsar, is considered to have founded the Russian State. He crushed the power of rival princes and boyars (great land-owners), but Russia remained largely medieval until the reign of Peter the Great (1682–1725), grandson of the first Romanov tsar, Michael (1613–45). Peter effected extensive reforms aimed at Westernization, and through his defeat of Charles XII of Sweden at the Battle of Poltava (1709), he extended Russia's boundaries to the west. Catherine the Great (1762–96) continued Peter's Westernization program and also expanded Russian territory, acquiring the Crimea and part of Poland. During the reign of Alexander I (1801–25), Napoleon's attempt to subdue Russia was defeated (1812–13), and new territory was gained, including Finland (1809) and Bessarabia (1812). Alexander was the originator of the Holy Alliance which crushed for a time Europe's rising liberal movement. Between the Napoleonic Wars and World War I, a few reforms were introduced, but the autocratic power of the tsars remained unchanged.

During the reign of Alexander II (1855–81), Russia's borders were pushed to the Pacific and into central Asia. Serfdom was abolished in 1861, but heavy restrictions were imposed on the emancipated class. Revolutionary strikes following Russia's defeat in the war with Japan forced Nicholas II (1894–1917) to grant a representative national body (Duma), elected by narrowly limited suffrage. It met for the first time in 1906. Nicholas continued in his reactionary course, however, and the overwhelmingly liberal Duma had little or no influence in the government.

World War I demonstrated the corruptness and inefficiency of the tsarist regime, although the call of patriotism held the poorly equipped army together for a time. Disorders broke out in Petrograd (now Leningrad) in March, 1917, and, following the winning over of the Petrograd garrison, the revolution was in full swing. Nicholas was forced to abdicate under pressure from the Duma and was later killed by the revolutionists. A provisional government was formed, composed of both conservative and radical elements. This government, under the successive premierships of Prince Lvov and Alexander Kerensky, a Menshevik or moderate socialist, soon lost ground to the radical or Bolshevik wing of the Socialist Democratic Labor Party. Finally, on Nov. 7, 1917, came the Second Revolution, engineered by Nikolai Lenin and Leon Trotsky and their small but well-disciplined Bolshevik following in the Petrograd Soviet. The government was turned over the next day to the Congress of Soviets (councils of soldiers, peasants and workers), which vested the government in a Council of People's Commissars with Lenin as premier and Trotsky as foreign minister. The humiliating Treaty of Brest-Litovsk (March 3, 1918) concluded the war with Germany, but civil war and intervention by foreign powers prevented the new Communist government from gaining control of all Russia until 1920. A brief war with Poland in 1920 resulted in Russian defeat and withdrawal.

On July 6, 1923, the vast territory under Soviet rule—previously an inchoate mass whose constituent parts were changing constantly—became the Union of Soviet Socialist Republics, formed by the union of the Russian S.F.S.R. and the Ukrainian, Byelorussian and Transcaucasian S.S.R.'s.

The sudden death of Lenin (Jan. 21, 1924) precipitated an intraparty struggle between the group led by Joseph Stalin, general secretary of the party, and the opposition, led by Trotsky, which favored not only swifter socialization at home but fomentation of revolution abroad. In 1927, Trotsky and other opposition leaders were expelled from the party and exiled. The first Five-Year Plan (1928–32) called for gradual, progressive increase in industrial and agricultural production. Its collectivization program was opposed by the Kulaks, or wealthier peasants, who were vigorously suppressed. Purges carried out in 1936–38 removed many prominent leaders of the Revolution and high-ranking army officers.

Soviet foreign policy—first featured by friendship with Germany and antagonism toward England and France and then,

after Hitler's rise to power in 1933, by participation in the League of Nations and an anti-Fascist program—took another abrupt turn on Aug. 24, 1939, with the signing of a Soviet-German nonaggression pact. Territory seized from Poland (Sept., 1939) became part of the Ukrainian and Byelorussian S.S.R.'s; that secured from Finland at the conclusion of the Finnish war of 1939–40, part of the Karelian S.S.R. set up March 31, 1940; that secured from Rumania (Bessarabia and northern Bukovina), part of the Moldavian S.S.R. set up Aug. 2, 1940; and finally the formerly independent states of Estonia, Latvia and Lithuania, occupied in June, 1940, were absorbed into the U.S.S.R. as the 14th, 15th and 16th Soviet Republics. The latter annexations have not been recognized by the United States, Britain, or the majority of other nations.

Immediately following the German attack (June 22, 1941), all necessary powers for the defense of the state were vested in the State Defense Council headed by Stalin, who had taken over the post of premier on May 6. The Germans quickly seized approximately 500,000 square miles of Soviet territory, but Soviet forces resisted stubbornly, aided by increasing amounts of matériel from the U. S. and Britain. The great Soviet counteroffensive in the Stalingrad area (Nov., 1942–Feb., 1943) marked the turning point. Soviet troops gradually pushed the Nazis back and unleashed their final great offensive on Jan. 12, 1945. The nonaggression pact with Japan (1941) was denounced in April, 1945, and, following the declaration of war on Japan (Aug. 8, 1945), Soviet Far Eastern forces quickly occupied Manchuria, Karafuto and the Kuriles.

After the end of the war, the fourth Five-Year Plan was launched in Sept., 1945, with emphasis on the expansion of heavy industry.

GOVERNMENT. Under the constitution of 1936, the Soviet Union is "a Socialist State of Workers and Peasants" whose highest organ is the Supreme Council of the Union, which exercises legislative authority. It consists of two co-equal Houses—the Council of Nationalities, in which each constituent republic has 25 representatives, each autonomous republic 11, each autonomous oblast five, and each national okrug one (total 657); and the Council of the Union, elected on a nationwide basis with one representative for each 300,000 of population (total membership 682). All representatives are elected for four-year terms; the last election was held on Mar. 12, 1950. Elections amount to a blanket endorsement (or rejection) of a single list of candidates already nominated by the Communist Party, youth organizations, collective farms and trade unions. The only election in the Western sense of the word takes place in the selection of the nominees by these groups. All citizens over the age of 18 are enfranchised.

The Presidium of the Supreme Council acts as a directive body between the sessions of the Supreme Council. It has a chairman (sometimes referred to as the Soviet president), 16 vice chairmen (one for each constituent republic), a secretary and 24 members, all elected by the Supreme Council.

The highest executive and administrative power is exercised by the Council of Ministers (formerly People's Commissars) appointed by the Supreme Council and headed by a chairman (premier) and 14 vice chairmen. It issues decrees and executive orders on the basis of laws in operation and supervises their execution. The administrative machinery is necessarily vast and complicated, since it is responsible not only for the ordinary administrative functions of government, but also for the operation of state-owned enterprises.

The 16 constituent republics of the Union are as follows: the Russian Soviet Federated Socialist Republic (capital: Moscow) covering about 80 per cent of the total area; the Ukrainian S.S.R. (Kiev); Byelorussian S.S.R. (Minsk); Armenian S.S.R. (Erivan); Azerbaijan S.S.R. (Baku); Georgian S.S.R. (Tiflis); Turkmen S.S.R. (Ashkhabad); Uzbek S.S.R. (Tashkent); Tadzhik S.S.R. (Stalinabad); Kazakh S.S.R. (Alma Ata); Kirghiz S.S.R. (Frunze); Karelo-Finnish S.S.R. (Petrozavodsk); Moldavian S.S.R. (Kishinev); Lithuanian S.S.R. (Vilnius); Estonian S.S.R. (Tallinn) and Latvian S.S.R. (Riga).

Postwar territorial acquisitions include the Carpatho-Ukraine (12,617 sq. mi.) obtained from Czechoslovakia June 29, 1945, incorporated into the Ukrainian S.S.R. as Zakarpatskaya Oblast; the Republic of Tannu Tuva in central Asia (64,000 sq. mi.) incorporated early in 1945 into the R.S.F.S.R. as the Tuvinian Autonomous Oblast; Karafuto or southern Sakhalin (13,935 sq. mi.) and the Kurile Islands (3,944 sq. mi.), occupied by Soviet troops in Aug., 1945, and incorporated into the Khabarovsk Krai of the R.S.F.S.R.; the northern part of eastern Prussia (about 7,000 sq. mi.), placed under *de facto* Soviet administration at the Potsdam Conference and incorporated into R.S.F.S.R. as Kaliningrad (formerly Königsberg) Okrug; the Petsamo district of Finland, obtained *de jure* under the 1947 treaty and incorporated into the Murmansk Oblast of the R.S.F.S.R.; and Poland east of the Curzon Line (77,703 sq. mi.), under terms of the Soviet-Polish treaty of Aug. 16, 1945, incorporated into the Ukrainian and Byelorussian S.S.R.'s.

COMMUNIST PARTY. The only political party permitted to exist in the Soviet Union is the All-Union Communist Party, which now has more than 6,000,000 members. Its organization parallels the entire governmental and economic structure of the country and guides all important action through instructions from the central organs to Party members who occupy most of the important political and economic positions. Its highest organ is the All-Union Party Congress, which meets irregularly. The Congress elects a Central Committee (71 members, 68 alternates), which in turn elects: (1) an executive body (Politburo) with ten members and four alternates, (2) an organizational bureau (Orgburo), which manages the Party, (3) a secretariat headed by a general secretary (Stalin), and (4) a Committee of Party Control with 31 members.

The members of the all-powerful Politburo as reported in July, 1950, are Stalin, V. M. Molotov, A. A. Andreyev, K. E. Voroshilov, L. M. Kaganovich, A. I. Mikoyan, N. S. Khrushchev, L. P. Beria, G. M. Malenkov, N. A. Bulganin, A. N. Kosygin and N. M. Shvernik. There were two vacancies.

In Sept., 1947, the Cominform (Communist Information Bureau), a Soviet-dominated organization composed of representatives from nine national Communist parties, was established in Belgrade. Its headquarters were moved to Bucharest after the break with Tito in June, 1948. It was designed to replace the Comintern (dissolved in 1943) as an instrument in the promotion of worldwide communism. The new unit was described as representing the core of a united front against the threat of "reactionary and imperialist aggression," typified most immediately in the Soviet-boycotted European Recovery Program.

DEFENSE. The land, air and sea forces were under the unified control of the Armed Forces ministry until Feb., 1950, when a separate Navy ministry was created. Military service is compulsory; the initial training period varies from 2 to 5 years. The armed forces, which were estimated to have reached a peak of more than 15,000,000 in 1945, numbered approximately 4,500,000 in 1951. The strength of the army, including MVD and MGN troops (secret police organizations with paramilitary formations), was about 3,300,000, organized in more than 200 line divisions, not all of which were at full strength (10,000), with supporting troops. The air force had about 600,000 men and 20,000 planes; the navy, about 600,000 men. More than 500,000 troops were stationed outside Soviet borders, including 30 divisions in eastern Germany. At least 700,000 men were estimated to be located in Siberia and the Soviet Far East.

Information about the Red fleet is as vague as that about the army and air force. In 1951, it was believed to have a tonnage of about 600,000, including 3 battleships, 14 cruisers, 2 coast-defense ships, 70 destroyers, 70 escort vessels, 360 submarines, and large flotillas of coastal and river craft, patrol vessels, minesweepers and other small ancillary craft. An extensive naval-construction program was part of the fourth Five-Year Plan.

In 1949 the Soviet Union received 45 vessels from the Italian fleet, including a battleship and a cruiser. At the same time it returned to Britain and the U. S. ships borrowed in 1944, including the battleship H.M.S. *Royal Sovereign* and the cruiser U.S.S. *Milwaukee*.

On its face, about 21 per cent of the 1951 budget was allotted for military expenditures, but expenses linked to the armed forces in other parts of the budget, including police allotments and industrial commitments under the Five-Year Plan, greatly increased this percentage.

EDUCATION. The school system throughout the country is based upon uniform text books and the same syllabus, although a number of hours are allowed for native language, literature and history in the non-Russian schools. All schools are state controlled, and compulsory education begins at the age of seven. Coeducation is being abolished and separate schools established for boys and girls. The boys' curriculum stresses military training; the girls', housework. Enrollment in primary and secondary schools in 1950 was 37,000,000. Under the Defense Ministry are the newly established Suvorov military schools for the training of future officers. In 1950, 850 colleges and institutions of higher learning were functioning, with a student body of 1,247,000. Literacy was estimated at 81 per cent in 1940.

AGRICULTURE. Formerly an agricultural country, the Soviet Union has grown since about 1920 into an industrial-agricultural power, with agriculture making great advances at the same time. The total area under cultivation was 259,500,000 acres in 1913, 291,600,000 acres in 1929, and 388,000,000 acres in 1941.

PRODUCTION OF GRAIN CROPS

(in millions of bushels; U. S. Department of Agriculture estimates)

Grain	1935–39 average	1948	1949
Wheat	1,124	1,025	1,100
Rye	885	930	950
Barley	425	315	310
Maize	170	135	140
Oats	1,165	780	775

ANIMAL INDUSTRY
(millions of head)

Animal	1933	1947	1950
Horses	16.6	11.9	13.7
Cattle	38.4	52.0	57.2
Sheep and goats	50.2	84.7	99.0
Pigs	12.1	13.4	24.1

The Union's diverse climate permits the growing of the most varied crops, ranging from the temperate to the subtropical. Under the fourth Five-Year Plan, grain production increased to 124,700,000 metric tons in 1950 (a 5% increase over the prewar average), sugar beets to 24,300,000 (14% increase), and raw cotton to 3,750,000 (60% increase).

INDUSTRY. Almost all industry in the Soviet Union is carried on by organizations owned or controlled by the state. About 80 per cent of the total state industries is controlled by 291 large trusts. The industrialization of the country has been a major objective of its leaders. Completion of the first two Five-Year Plans (1928–32, 1933–37) and of most of the third (1937–42) saw a great increase in the volume and versatility of Soviet industry.

The large-scale evacuation of plants to the East and the construction of new plants there during World War II, coupled with the eastward orientation of industry prior to the war, has shifted the balance to newly developed regions in Central Asia and Siberia from the Moscow-Leningrad area and the Ukraine. The new regions are now the center of Soviet industrial power, accounting for almost all magnesium and aluminum production, and more than 60 per cent of the pig iron and steel production. The production of consumers' goods continues to be subordinate to the production of heavy capital equipment.

Large increases in production were reported under the fourth Five-Year Plan, which ended in 1950. Pig-iron production in 1950 was estimated at 19,200,000 metric tons (target 19,400,000 tons); steel, at 27,600,000 metric tons or 46 per cent above prewar (target 25,400,000 tons). The plan contemplated construction of 45 additional blast furnaces, 180 open-hearth furnaces, 90 electric furnaces and 104 rolling mills. It also called for a 100 per cent increase in engineering production and equipment and for an increase of 3.7 times in the metallurgical industries. Even at the 1950 rate, however, Soviet steel production was on a level only about the same as that of the U. S. in 1913. The value of capital investments in the period 1946–50 was fixed at 157,500,000,000 roubles.

According to official Soviet sources, production in the final quarter of 1947 reached the 1940 level, and output in 1950 was 73 per cent above the 1940 level and 127 per cent above that of 1946.

FOURTH FIVE-YEAR PLAN
(Index numbers of industrial production; 1946 = 100)

	1948	1949	1950
Total production	155	186	227
Pig iron	139	165	193
Steel	140	175	203
Coal	128	145	161
Petroleum	134	153	174
Automobiles	273	617	870
Cement	192	242	307
Tractors	426	660	810
Cotton textiles	165	188	203
Woolen textiles	170	202	209
Leather footwear	172	210	262

FOREIGN TRADE. Soviet foreign trade is a state monopoly, and foreign goods are purchased in accordance with an over-all plan conducted under the supervision of the Foreign Trade Ministry. Connected with the Ministry are a number of export-import and transport combines.

The U.S.S.R. share in world exports (1938) was 1.1 per cent; imports, 1.2 per cent. No later statistics are available. Exports were grain, 21.9 per cent; lumber and timber, 16.8 per cent; furs, 9.9 per cent; petroleum and products, 7.9 per cent; and cotton goods and threads, 4.5 per cent. Imports included machines and industrial equipment, 26.8 per cent; iron and steel, 10.3 per cent; wool, 5.3 per cent; electrical machines and parts, 4.2 per cent; and live animals, 3.7 per cent. From June 22, 1941, until 1945, large supplies were received from Britain and Canada, and from Oct. 1, 1941, until after V-J Day, a total of $11,141,470,000 in lend-lease assistance came from the U. S.

COMMUNICATIONS. According to Lloyd's Register of Shipping, the merchant marine on June 30, 1950, had 967 ships (over 100 tons) aggregating 2,124,823 tons. Merchant ship construction was made subordinate to naval construction under the fourth Five-Year Plan. The principal ports include Leningrad on the Gulf of Finland, Murmansk and Archangel on the Arctic Ocean and White Sea, respectively; Vladivostok on the Sea of Japan; and the Black Sea ports of Odessa, Sevastopol, Novorossisk and Batum. River and canal transport is extremely important. In 1947 there were about 60,000 miles of navigable rivers and canals.

Railway mileage was estimated in 1950 at 70,000, of which about a third was double-tracked. Freight traffic reached 569,117,490 tons and 1,777,800,000 passengers were carried in 1938. Highway mileage (1945) totaled 849,520, but only 7,146 mi. (less

than in Vermont) were reported as all-weather roads in 1949. Under the latest Five-Year Plan, war-devastated railway lines were rebuilt and another 4,510 miles were to be constructed, including 3,310 miles in Siberia.

Air traffic is assuming great importance, especially in the central Asiatic portion of the U.S.S.R. Prior to World War II, the network of air routes covered 69,845 miles; in 1950 the estimated length was 109,000 miles, over which some 2,000,000 passengers were carried (300,000 in 1938). Moscow is connected with the capitals of all the Union republics by daily air service, and there are regular services to the Far East and Europe. No foreign air routes have been allowed to enter the U.S.S.R.

FINANCE. Recent financial data are as follows, in billions of roubles:

	1949	1950	1951*
Revenue	437.0	421.9	458.7
Expenditure	412.3	412.7	451.5

* Budget estimate.

The budget includes charges for the financing of industry, transportation, agriculture and commerce—items which ordinarily are handled through private channels in other countries. The internal debt in 1939 amounted to $2,667,369,471.

MINERALS. The U.S.S.R. is probably the richest country in the world in mineral resources, containing deposits of almost every known mineral. It ranks second in coal production, second in chromite, second in iron ore, third in petroleum, second in gold, and retains high rank in the production of numerous others. The richest mineral region is that of the Ural Mountains, which lacks only good coking coal. Total coal production in 1950 was estimated at 264,000,000 metric tons; that of iron ore, perhaps 40,000,000 tons. Other production estimates included aluminum (1948) 140,000 metric tons; copper (1949) 225,000 tons; lead (1949) 155,000 tons; platinum (1948) 125,000 oz.; tin (1949) 9,000 tons; zinc (1949) 170,000 tons; gold (1949) 7,000,000 oz. Petroleum production was estimated at 269,000,000 bbl. in 1950, including eastern Poland and Sakhalin. Uranium deposits are believed to exist in the U.S.S.R.

FORESTS. With a forested area of about 1,550,000,000 acres, the U.S.S.R. possesses a large proportion of the world's timber reserves. Most of the forested area is in Siberia, but there are also valuable stands in the Caucasus. Plans were made late in 1948 for the planting of huge forest belts 60 to 90 mi. wide in the southern steppes to protect fertile food-producing areas from the dry winds of the central Asian and Caspian deserts.

FISHERIES AND FURS. The rivers, lakes and surrounding seas (except the Black Sea) are rich in fish; the catch averages more than 1,500,000 tons annually. The acquisition of former Japanese fisheries in Karafuto and the Kuriles will double the output of the Far Eastern fish industry. Trapping is an important secondary industry, especially in eastern Siberia.

TOPOGRAPHY. The U.S.S.R. is the largest unbroken political unit in the world, occupying more than one-seventh of the land surface of the globe. The greater part of its territory is a vast plain stretching from eastern Europe to the Pacific Ocean. This plain, relieved only occasionally by low mountain ranges (notably the Urals), consists of three zones running east and west: (1) the frozen marshy tundra of the Arctic; (2) the more temperate forest belt; and (3) the steppes or prairies to the south, which in southern Soviet Asia become sandy deserts. The topography is more varied in the South, particularly in the Caucasus between the Caspian and Black Seas, and in the Tien-Pamir mountain system bordering Afghanistan, Sinkiang and Mongolia. Mountains (Stanovoi and Kolymá) and great rivers (Amur, Yenisei, Lena) also break up the sweep of the plain in Siberia.

CLIMATE. The climate necessarily is varied, but for the most part is continental. In general the climate of the northern and central regions is characterized by long, cold winters and by summers which are shorter and cooler than those in the northern part of the United States. Siberia has the coldest winters in the world; the January average at Verkhoyansk is —59°. In the southern regions the climate varies between temperate and subtropical. The Uzbek, Turkmen and Kazakh S.S.R.'s are largely desert and semi-desert areas. In the central belt rainfall is fairly uniform, averaging about 15 inches east of the Urals and 20 inches to the west. In the tundra to the north it drops to about 8 inches and to 4 inches in the southern regions.

Average daily low temperature at Moscow is about 5° (high, 14°) in January, the coldest month; average daily high is 71° during July, the warmest month.

Uruguay (Republic)

(República Oriental del Uruguay)

Area: 72,172 square miles.
Population (est. 1949): 2,650,000 (white, 86%; mestizo, 12%; Indian, 2%).
Density per square mile: 36.7.
President: Andrés Martínez Trueba.
Principal cities (est. 1948): Montevideo, 850,000 (capital); Paysandú, 50,000 (meat packing); Salto, 48,000 (cattle raising); Mercedes, 33,000 (farming center).
Monetary unit: Peso.

Language: Spanish.
Religion: Roman Catholic.

HISTORY. Uruguay, a little larger than North Dakota, has many distinctions. It is the smallest and most densely populated of the sovereign South American nations. It has one of the highest proportions of white population and one of the lowest illiteracy rates in all Latin America. Despite constant pressure from Argentina, and some concessions to that powerful neighbor, Uruguay has managed to remain one of the most democratic and progressive of Latin American states.

Juan Díaz de Solís, a Spaniard, discovered Uruguay in 1516, but the Portuguese were first to settle it when they founded Colonia in 1680. After a long struggle, Spain wrested the country from Portugal in 1778. Uruguay revolted against Spain in 1811, only to be conquered in 1816–20 by the Portuguese from Brazil. Independence was re-asserted with Argentine help in 1825, and the republic was set up in 1830. There followed a long period of factional strife between two groups still in existence at the present time—the Blancos and the Colorados. President José Batlle y Ordóñez launched a series of social reforms in 1911–15 which started Uruguay on its modern career of democracy, although Gabriel Terra, elected president in 1931, seized dictatorial power and modified the constitution to permit his re-election.

Terra was succeeded in 1938 by Alfredo Baldomir and, in 1943, by Juan José de Amézaga, both of whom worked closely with the U. S. on global and hemispheric policy. In 1946, Tomás Berreta was elected president; he took office March 1, 1947 for a four-year term and was replaced after his death on Aug. 2, 1947, by Luis Batlle Berres. The latter was succeeded on Mar. 1, 1951, by Andrés Martínez Trueba.

GOVERNMENT AND DEFENSE. Under the 1936 constitution, Uruguay elects every four years a president, a vice president, a cabinet and a two-house congress—a 99-member Chamber of Deputies and a 30-member Senate. The cabinet and congress are chosen by proportional representation. All literate citizens may vote, including women, who may also sit in congress.

Service in the army (1950 strength: 26,000) is voluntary, but national guard service is compulsory in wartime. There is a police force of about 5,500, and a small air force. The navy has a 1,150-ton sloop, a surveying vessel and several smaller craft.

SOCIAL AND ECONOMIC CONDITIONS. Uruguay's illiteracy rate is 35 per cent; primary education is compulsory, and all education is free. There were in 1948 a total of 194,072 pupils in 1,644 public schools and about 20,000 in the university at Montevideo. Uruguay's high percentage of white population includes many foreign-born, mostly Italian and Spanish, but some Brazilian, Argentine and French.

Cattle, sheep, meat and wool dominate the Uruguayan economy. With nearly 80 per cent of its grassy land devoted to grazing, there were in 1949, 23,000,000 sheep and 8,700,000 cattle. Wool exports in the year 1949–50 were 81,000 short tons. With only about 5 per cent of the land cultivated, a third of this grows wheat, the chief crop (1949–50: 429,000 metric tons). Other crops are corn, flax for linseed, oats, potatoes, beans, fruits, tobacco, alfalfa and grapes. Wine production in 1950 was about 23,000,000 gallons.

Uruguay slaughters more than two million head of cattle and sheep a year, and meat processing is the largest manufacturing industry. There are many modern plants for chilling or freezing meat, and plants for liquid extract of beef.

During World War II Uruguay doubled its foreign trade, and most of the increase went to the U. S. Recent data are as follows (in millions of U. S. dollars):

	1948	1949	1950
Exports	179.0	191.7	254.3
Imports	201.5	181.7	201.7

In value, wool was the chief export (60%) in 1950, followed by beef and mutton (14%) and hides and skins (11%). Chief customers were the U. S. (51%), Britain (13%) and Belgium (6%). Britain (22%) and the U. S. (20%) were the principal suppliers. Leading imports included machinery, vehicles, gasoline, textiles and sugar.

Steamers of 14-foot draft can travel half-way up the Uruguay River border, and smaller craft can go nearly the length of that border. The Río Negro is navigable only in its lower course. Railway mileage in 1949 totaled 1,874. Prior to 1948, 90 per cent was British-owned, but in that year the government purchased complete interest. Road mileage was 26,000 in 1948, of which 3,051 mi. were paved.

Actual government expenditure in 1950 was 306,000,000 pesos; revenue, 280,000,000 pesos. The funded public debt on Dec. 31, 1949, was 808,500,000 pesos.

Minerals are of slight importance. In the north, some gold is mined and there are small deposits of silver, lead, copper, talc and lignite.

TOPOGRAPHY AND CLIMATE. Uruguay, a low rolling plain in the south and a low plateau in the north, has a 120-mile Atlantic shore line, a 235-mile frontage on the Río de la Plata, and 270 miles on the Uruguay River, its western boundary. The climate is good. Average summer temperature in January and February is 71°, and average winter temperature in July is 50°. Frost is almost unknown. Average rainfall is 35 inches, heaviest in the autumn.

Vatican City State

(Stato Città Vaticana)

Area: 108.7 acres.
Population (est. 1948): 800 (Italian, 85%; Swiss and others, 15%).
Ruler: The Supreme Pontiff, Pius XII.
Monetary unit: Lira.
Languages: Latin, Italian.
Religion: Roman Catholic.

The Vatican City State, sovereign and independent, is situated on the Vatican hill on the right bank of the Tiber in northwest Rome. The area has been intimately associated with the history of the Roman Catholic Church since the time of the martyrdom of St. Peter. From it the Pope exercised temporal sway for many centuries over a large part of central Italy; in 1859 the Papal States comprised an area of some 17,000 square miles. During the struggle for Italian unification (1860–70), most of this area became part of the Kingdom of Italy.

By an Italian law of May 13, 1871, the temporal power of the Pope was abrogated, and the territory of the Papacy was confined to the Vatican and Lateran palaces and the Villa of Castel Gandolfo. The Popes consistently refused to recognize this arrangement, and by the Lateran Treaty of Feb. 11, 1929, between the Vatican and the Kingdom of Italy, the exclusive dominion and sovereign jurisdiction of the Holy See over the city of the Vatican was again recognized, thus restoring the Pope's temporal authority over the area. Accompanying the treaty were conventions regulating the position of the Catholic Church in Italy and providing for reimbursement to the Vatican in final settlement of the claims of the Holy See against Italy for the loss of temporal power in 1870–71.

The Supreme Pontiff is Pius XII (Eugenio Pacelli), born at Rome, March 2, 1876, proclaimed cardinal in 1929, and elected Pope on March 2, 1939.

The Pope has full legal, executive and judicial powers. Executive power over the area is in the hands of a governor appointed by the Pope and exclusively responsible to him.

The College of Cardinals is the Pope's chief advisory body, and upon his death the cardinals elect his successor for life. The cardinals themselves are created for life by the Pope. When complete, the College consists of 70 members: 6 Cardinal-Bishops, 50 Cardinal-Priests, and 14 Cardinal-Deacons.

The central administration of the Roman Catholic Church throughout the world is carried on in the Vatican by 12 congregations, 3 tribunals and 5 offices.

In its diplomatic relations with foreign countries, the Vatican is represented by the Papal Secretary of State. In 1950 the Vatican maintained diplomatic relations with 40 states through its papal-nuncios (ambassadors) and inter-nuncios (ministers). Apostolic Delegates, representatives without accredited rank, are maintained in a number of other countries.

The Vatican has its own railway station, postal facilities, coinage, newspaper, radio and television system. In addition to the Vatican itself, which includes St. Peter's Square, extraterritorial rights are enjoyed in 13 buildings in the city of Rome outside Vatican City.

Venezuela (Republic)

(Estados Unidos de Venezuela)

Area: 352,143 square miles.
Population (census 1950): 4,986,000 (mestizo, 65%; white, 20%; Negro, 8%; Indian, 7%).
Density per square mile: 14.2.
Executive: Governing junta headed by Germán Suárez Flámerich.
Principal cities (est. 1947): Caracas, 342,921 (capital); Maracaibo, 131,989 (oil); Barquisimeto, 74,139 (coffee, sugar, mining); Valencia, 59,251 (farming center).
Monetary unit: Bolívar.
Language: Spanish.
Religion: Roman Catholic.

HISTORY. Venezuela, a third larger than Texas, has a stormy political past and the distinction of being the world's second greatest producer of oil, outranked only by the U. S. In South America it is the sixth country in size and the only independent country lying entirely north of the equator. Simón Bolívar, who led the liberation of much of the continent from Spain, was born in Caracas.

Columbus discovered Venezuela on his third voyage in 1498. A subsequent Spanish explorer, for reasons of his own, gave the country its name, meaning "Little Venice." There were no important settlements until Caracas was founded in 1567. With Bolívar taking part, Venezuela was one of the first South American colonies to revolt against Spain in 1810, but it was not until 1821 that independence was won. Federated at first with Colombia and Ecuador, the country set up a republic in 1830, and then sank for many decades into a condition of revolt, dictatorship and corruption climaxed by the ironhand regime of Antonio Guzmán Blanco from 1870 to 1889. The U. S. intervened in 1895 to force an arbitration between Great Britain and Venezuela in a dispute over the boundary with British Guiana. From 1908 to 1935, when he died, General Juan Vicente Gómez ruled tyrannically over the nation, picking various satellites to alternate with him in the presidential palace. He was succeeded in 1936 by General Eleazar López Contreras. The president during World

War II, General Isaías Medina Angarita, co-operated with the U. S. but permitted such political freedom that he was overthrown on Oct. 19, 1945.

Out of that revolt, militarist in nature, the Socialist leader Dr. Rómulo Betancourt emerged as provisional president, and his government received U. S. recognition on Oct. 30, 1945. Betancourt's party, the liberal Acción Democrática, won 137 out of 160 seats in an election held Oct. 27, 1946, for a Constituent Assembly to draft a new constitution. The well-known writer, Rómulo Gallegos, easily won the presidential election of Dec. 14, 1947, as the candidate of Acción Democrática. The latter party also won 83 of the 110 seats in the chamber of deputies.

Venezuela's brief experience with democracy was abruptly ended on Nov. 24, 1948, however, by an army-led conservative coup which ousted Gallegos.

GOVERNMENT AND DEFENSE. Venezuela is a union of 20 states, a federal district and two territories. Before November, 1948, Congress had a 46-member senate and a 110-member chamber of deputies, both elected directly. Under the constitution promulgated July 5, 1947, the president was elected by popular vote for five years and could not succeed himself. The constitution (Venezuela's 20th) established comprehensive political and social rights, including woman suffrage.

Military service is compulsory, with a one- to three-year initial training period. The army has about 10,000 men. The navy has several gunboats, corvettes, and other minor craft. There is a small air force.

SOCIAL AND ECONOMIC CONDITIONS. Illiteracy in 1949 was estimated at 60 per cent. Primary education between ages of 7 and 14 is compulsory. School enrollment in 1947–48 exceeded 350,000 in 4,951 primary schools and 132 secondary schools. There are three universities—Los Andes at Mérida, Central University at Caracas, and Zulia at Maracaibo.

Agriculture engages the majority of the population, but production has failed to keep pace with the food needs of the rapidly increasing population. The principal crop is coffee, grown on 60,000 plantations on the slopes of the coastal mountains. Annual production averages 1,000,000 bags of 60 kilograms each. Exports of cacao in 1950 were 15,444 tons. Other important crops are sugar, tobacco, cotton, corn, wheat and tropical fruits. Stockraising, centered east of Lake Maracaibo, and on the llanos, is important. Estimates in 1949: 3,000,000 cattle and 1,500,000 goats.

There are few industries, the most important being woodworking, cotton textiles and tobacco products. Electric power is plentiful, and a law of 1943 prepared the way for the beginning of an oil refining industry. The 13 oil refineries and topping plants in 1950 had an output of over 90,000,000 bbl. In 1950, 2,107,249,000 cigarettes and 501,005 metric tons of cement were produced.

Oil, most of which is found on the northwest shore of Lake Maracaibo, is by far the dominant factor in the economy. It accounts for 95 per cent of exports, gives the country a big foreign trade balance and a treasury surplus. Recent foreign trade statistics, in millions of bolívares:

	1948	1949	1950
Exports	3,484	3,360	3,888
Imports	2,300	2,241	1,798

In 1950, the U. S. supplied 68 per cent of the imports; Britain, 7 per cent. Leading imports were machinery and equipment, metals and manufactures, foodstuffs, beverages and textiles. In addition to petroleum (97%), the chief exports were coffee and cacao. Most of the oil goes to the U. S. via the islands of Curaçao and Aruba, refining centers in the West Indies. In 1949, those islands took 56 per cent of the exports; the U. S., 29 per cent.

Highways include 3,829 miles for all-weather use, and 1,600 miles of unimproved road. Railway mileage is about 685, largely in unconnected short lines, ten national and two British-owned. There is an extensive air service. La Guaira and Puerto Cabello are the chief seaports. Navigable rivers total 6,500 miles. Most of the tonnage sent along the Orinoco—navigable for 700 miles for river steamers of 12-foot draft—is transshipped at Port of Spain, Trinidad.

Actual government expenditure in the fiscal year 1949–50 was 1,984,600,000 bolívares; revenue, 1,889,000,000 bolívares. There is no foreign debt.

Oil production increased from 116,000,000 barrels in 1931 to 560,000,000 barrels in 1950 (1949: 482,280,987 barrels). In addition to oil, Venezuela has gold mines in the region southwest of the Orinoco delta. Output in 1950 was 34,460 troy oz. Of minor importance are bauxite, coal, copper, tin, asbestos and asphalt. Diamond production in 1950 was 60,389 carats. A subsidiary of Bethlehem Steel Corp. began the mining of iron ore in the El Pao area south of the Orinoco river in 1950, while a U. S. Steel Corp. subsidiary went ahead with preliminary development operations on a rich "iron mountain" south of Ciudad Bolivar on the Orinoco.

Much of the country is covered by forests still barely exploited, particularly south of the Orinoco. One of the oldest industries is the pearl fisheries off Margarita, Coche and Cubagua islands.

TOPOGRAPHY AND CLIMATE. An unusual setting of mountain systems breaks Venezuela into four distinct areas: (1) the Maracaibo lowlands; (2) the mountainous

region in the north and northwest; (3) the Orinoco basin with the llanos (vast grass-covered plains) on its northern border and great forest areas in the south and southeast; (4) the Guiana highland, south of the Orinoco, accounting for nearly half the national territory. About 80 per cent of Venezuela is drained by the Orinoco and its 400 tributaries. The coast line, 1,876 miles long, is indented in the northwest by the Gulf of Maracaibo. A narrow channel joins the gulf to Lake Maracaibo, which is nearly the size of Lake Ontario.

The climate is tropical and unhealthful except where modified by altitude; it approaches the mild temperate in the higher western mountains. Most rainfall occurs between April and October, and the rest of the year is dry. At La Guaira, the mean annual temperature is 81°, at Caracas, 70°, at Cumaná, 83°.

Yugoslavia (Republic)
(Federationa Narodna Republika Jugoslavija)

Area: 99,044 square miles.*
Population (est. 1950): 16,250,000 (1931: Serbian, 46%; Croat, 28.5%; Slovene, 8.5%; German, 3.6%; others [Magyar, Albanian, Rumanian, Czech], 13.4%).
Density per square mile: 164.0.*
Chairman of Presidium of National Assembly: Ivan Ribar.
Prime Minister: Josip Broz (Tito).
Principal cities (census 1948): Belgrade (Beograd), 388,246 (capital); Zagreb, 290,417 (Croat commercial center); Ljubljana, 120,944 (Slovenian industrial center); Sarajevo, 118,158 (Bosnian manufacturing center); Subotica, 112,551 (wheat, livestock).
Monetary unit: Dinar.
Languages: Serbo-Croat, Slovene, Macedonian (all official).
Religions (1931): Serbian-Orthodox, 48.7%; Roman Catholic, 37.45%; Mohammedan, 11.2%; Protestant, 1.66%; Jewish, .49%; Greek Catholic, .32%; others, .13%.

* Including 1947 treaty awards.

HISTORY. Yugoslavia, twice the size of Pennsylvania and fronting on the Adriatic Sea opposite Italy, was formed in 1919 out of some of Europe's oldest trouble spots in the Balkans. After a brief and unstable history of 25 years, it emerged from World War II as a Russian satellite. World amazement, however, followed an attack made June 28, 1948, by the Soviet-dominated Cominform on Marshal Tito and the Yugoslav Communist party for inspiring a "hateful" policy against the Soviet Union and retreating from the Communist line in foreign and domestic policies. Unlike other officials similarly attacked by Soviet organs in the past, Tito denounced the Cominform's action and still continued in full power despite further repeated attacks by the Cominform and members of the Soviet east European bloc. On Sept. 29, 1949, the Soviet Union denounced its 1945 treaty of friendship with Yugoslavia.

The 1919 components of Yugoslavia were the old kingdoms of Serbia and Montenegro, and the following: Bosnia-Herzegovina, formerly administered jointly by Austria and Hungary; Croatia-Slavonia, which had had limited autonomy under Hungary; and Slovenia and Dalmatia, formerly administered by Austria.

Alexander I, son of King Peter of Serbia, became the first king of the new country on Aug. 16, 1921. His reign was a rocky one because the Croats, under Dr. Stephen Radić, unceasingly sought autonomy. Finally, a Croat assassinated Alexander in Marseille in Oct., 1934, and since his son Peter was a minor, a regency was set up under Prince Paul, the new king's uncle.

After pursuing an increasingly pro-Axis policy under the regent, Yugoslavia signed the Axis Pact on March 25, 1941; this caused the overthrow of the government two days later. On April 6 the country was invaded by the Nazis and was speedily occupied. While the king and government fled to the Near East and later to London, Yugoslavia was divided into German, Italian, Hungarian and Bulgarian occupation zones. Puppet regimes were established in Croatia and Serbia.

Inside Yugoslavia, the Axis occupation was fought by two guerrilla armies—the Chetniks under Draja Mikhailović, who supported the monarchy; and the Partisans under Marshal Tito (Josip Broz), who leaned toward Russia. These two groups fought not only the Germans, but also each other. In Nov., 1943, Tito established an Executive National Committee of Liberation to act as a provisional government, thus repudiating King Peter in exile.

In the elections of Nov. 11, 1945, Tito's forces won overwhelmingly, partly because the monarchist factions boycotted the balloting. Convening on Nov. 29, the new Assembly abolished monarchy and set up the Federal People's Republic of Yugoslavia. Tito was prime minister, and his government won British and U. S. recognition.

The Tito government embarked upon an internal policy of ruthless oppression and elimination of opposition factions, including the summary trial and execution of Mikhailović in 1946. In April, 1947, it initiated a five-year plan aimed at improvement of agriculture and heavy expansion of industry. Conflict soon arose within the government as to the rate at which socialization should be pushed, and the dismissal in May, 1948, of officials favoring an intensified program led in part to the Cominform blast at Tito in June.

Externally the government pursued, un-

til 1948, its uncompromising support of Moscow, as manifested by Yugoslav aid to anti-government Greek guerrillas, which had led to a U. N. inquiry in 1947. Soviet support enabled the nation to secure most of Italian Istria under the 1947 peace treaty, but efforts to secure sovereignty over the key port of Trieste were unsuccessful.

Cominform hostility has remained implacable since 1948, while Yugoslavia's relations with the western powers have gradually improved.

GOVERNMENT AND DEFENSE. The constitution of Jan. 31, 1946, is derived from Moscow. There is a federal assembly with one representative for each 50,000 electors in the country. There is a "house of the peoples" in which the six federal units—Serbia, Croatia, Slovenia, Bosnia-Herzegovina, Macedonia and Montenegro—each have 25 representatives, while three other areas have a total of 25. The presidium, a joint committee of both houses, carries on when parliament is out of session, but actual control of the country is in the hands of the Yugoslav Communist Party.

The army, based upon the National Liberation Army and partisan detachments which at one time had a strength of about 800,000, was unofficially estimated to number from 500,000 to 600,000 in 1950, including police forces. Equipment generally is poor. The air force had about 600 planes in 1950. The navy was believed to include 7 submarines and 3 escort destroyers on Jan. 1, 1950. It received several small ships from the Italian fleet in 1948.

SOCIAL AND ECONOMIC CONDITIONS. Education on the elementary level is compulsory and free. In 1947–48, there were 12,052 elementary schools with 1,616,002 pupils, 942 secondary schools with 310,185 students, and 1,307 technical schools with 121,137 students. The various universities and technical colleges had a total enrollment of 43,625.

Agriculture occupies about 80 per cent of the population. The principal crops are corn, wheat, sugar beets, hemp, hops, opium (in Macedonia) and tobacco (chiefly in Macedonia and Herzegovina). Crop figures in 1950 (a drought year) were as follows, in metric tons: wheat, 1,826,708; corn, 2,084,624; sugar beets, 850,631; tobacco, 15,835; potatoes, 1,018,835; flax, 12,391. Excellent wines are produced in Dalmatia and Herzegovina and along the Danube (production 1950: 87,160,000 U. S. gallons). The fruit industry is important, especially in Serbia and Bosnia. Wool production in 1950 was 11,046 tons.

Manufactures are limited for the most part to consumers' goods. Legislation passed Dec. 5, 1946, nationalized all private economic enterprises, public works and industries in 42 branches of the national economy including mining, metallurgy, all industries processing natural products, food processing, beverages, building, transportation, and all land, sea and air communications.

Yugoslavia has only limited access to ports on the Adriatic because of the difficulty in crossing the coastal range with railways and highways. Waterways, especially the Danube, are important. The merchant marine in 1950 totaled 103 vessels (of over 100 tons) with a gross tonnage of 214,764. Railway mileage in 1949 was 6,926; main highway mileage (1947), 20,646.

Recent trade data are as follows (in millions of dinars):

	1948	1949	1950
Exports	15,110	9,790	7,930
Imports	15,780	14,880	11,791

Chief exports in 1950 were wood and products (32%), nonferrous metal products (14%), grain (10%) and ores and concentrates (6%). Leading customers were Britain (18%), the U. S. (14%), west Germany (12%) and Italy (11%); leading suppliers, the U. S. (20%), west Germany (17%) and Italy (10%).

The 1951 budget balanced revenue and expenditure at 172,662,000,000 dinars. Actual revenue in 1950 (provisional figures) was 178,345,714,000 dinars; expenditure, 172,831,586,000 dinars.

Yugoslavia is the Balkans' principal mineral producer. Production in 1950 was as follows, in metric tons: coal, 8,358,047; lignite, 4,508,384; blister copper, 40,080; iron ore, 825,856; chrome (concentrates), 19,077; bauxite, 200,929; manganese ore, 13,338; refined lead, 57,204; raw zinc, 10,844. Many rushing mountain streams make a high potential of hydroelectric power, used frequently in the development of mining.

Forests cover about 30 per cent of the country, with beech, fir and oak common.

TOPOGRAPHY AND CLIMATE. About half of Yugoslavia is mountainous. In the north, the Dinaric Alps rise abruptly from the sea and progress eastward as a barren limestone plateau called the Karst. Montenegro is a jumbled mass of mountains, containing also some grassy slopes and fertile river valleys. Southern Serbia, too, is mountainous. A rich plain in the north and northeast, drained by the Danube, is the most fertile area of the country.

The Danube and tributaries—the Drava, Sava and Morava—in the northeast are the principal rivers. On the Adriatic, Yugoslavia's climate is mild and Mediterranean, but in the interior the winters are cold and the summers hot. January temperatures in Belgrade average about 30°, and summer temperatures are usually in the 70°s. Rainfall is heaviest throughout the country from October to January.

Explorations and Discoveries

Africa

Country or place	Event	Explorer or discoverer	Date
Sierra Leone	Visited	Hanno, Carthaginian seaman	c. 520 B.C.
Congo River	Mouth discovered	Cão, Portuguese navigator	c. A.D. 1484
Cape of Good Hope	Doubled	Bartholomeu Diaz, Portuguese navigator	1488
Gambia River	Explored	Mungo Park, Scottish explorer	1795
Sahara Desert	Crossed	Denham and Clapperton, English explorers	1822–23
Zambezi River	Discovered	Livingstone, Scottish explorer	1851
Sudan	Explored	Barth, German explorer	1852–55
Victoria Falls	Discovered	Livingstone	1855
Lake Tanganyika	Discovered	Burton and Speke, British explorers	1858
Congo River	Traced	Stanley, British explorer	1877

Asia

Punjab (India)	Visited	Alexander the Great	327 B.C.
China	Visited	Marco Polo, Italian traveler	c. A.D. 1272
Tibet	Visited	Odoric, Italian monk	c. 1325
Southern China	Explored	Conti, Italian adventurer	c. 1440
India	Visited by Cape route	Vasco da Gama, Portuguese navigator	1498
Japan	Visited	St. Francis Xavier of Spain	1549
Arabia	Explored	Niebuhr, German explorer	1762
China	Explored	Richthofen, German scientist	1868
Mongolia	Explored	Przhevalsky, Russian explorer	1870–73
Central Asia	Explored	Hedin, Swedish scientist	1890–1908

Europe

Shetland Islands	Visited	Pytheas of Massilia (Marseille)	c. 325 B.C.
North Cape	Rounded	Ottar, Norwegian explorer	c. A.D. 870
Iceland	Colonized	Norwegian noblemen	c. 890–900

North America

Greenland	Colonized	Eric the Red, Norwegian navigator	c. A.D. 985
Labrador; Nova Scotia (?)	Discovered	Leif Ericsson, Norwegian explorer	1000
West Indies	Discovered	Christopher Columbus, Italian navigator	1492
North America	Coast discovered	John Cabot, for British	1497
Pacific Ocean	Discovered	Balboa, Spanish explorer	1513
Florida	Explored	Ponce de León, Spanish explorer	1513
Mexico	Conquered	Cortez, Spanish adventurer	1519
St. Lawrence River	Discovered	Cartier, French navigator	1534
Southwest U. S.	Explored	Coronado, Spanish explorer	1540–42
Colorado River	Discovered	Alarcón, Spanish explorer	1540
Mississippi River	Discovered	Hernando de Soto, Spanish explorer	1541
Frobisher Bay	Discovered	Frobisher, English seaman	1576
Maine Coast	Explored	Champlain, French explorer	1604
Jamestown, Va.	Settled	Smith, English colonist	1607
Hudson River	Explored	Hudson, English navigator	1609
Hudson Bay (Canada)	Discovered	Hudson	1610
Baffin Bay	Discovered	Baffin, English navigator	1616
Lake Michigan	Navigated	Nicolet, French explorer	1634
Arkansas River	Discovered	Marquette and Joliet, French explorers	1673
Mississippi River	Explored	LaSalle, French explorer	1682
Bering Strait	Discovered	Bering, Danish explorer	1728
Alaskan Coast	Sighted	Gvosdeff, Russian sailor	1731
Mackenzie River (Canada)	Discovered	Mackenzie, Scottish-Canadian explorer	1789
Northwest U. S.	Explored	Lewis and Clark	1804–06
Northeast Passage (Arctic Ocean)	Navigated	Nordenskiold, Swedish explorer	1879
Greenland	Explored	Peary, American explorer	1892
Northwest Passage	Navigated	Amundsen, Norwegian explorer	1906

South America

Country or place	Event	Explorer or discoverer	Date
Continent	Visited	Columbus, Italian navigator	1498
Brazil	Discovered	Cabral, Portuguese explorer	1500
Peru	Conquered	Pizarro, Spanish explorer	1532–33
Amazon River	Explored	Orellana, Spanish explorer	1541
Cape Horn	Discovered	Schouten, Dutch navigator	1615

Oceania

New Guinea	Visited	Menezes, Portuguese explorer	1526
Australia	Visited	Jansz, Dutch explorer	1606
Tasmania	Visited	Tasman, Dutch navigator	1642
Australia	Explored	Sturt, English explorer	1828
Australia	Explored	Burke and Wills, Australian explorers	1861

Arctic, Antarctic and Miscellaneous

Ocean exploration	Expedition	Magellan's ships circumnavigated the globe	1519–22
Spitsbergen (Arctic Europe)	Visited	Barents, Dutch navigator	1596
Antarctic Circle	Crossed	Cook, English navigator	1773
Antarctica	Discovered	Palmer, U S. explorer (archipelago) and Bellingshausen, Russian navigator (mainland)	1820–21
Antarctica	Explored	Wilkes, American explorer	1840
North Pole	Discovered	Peary, American explorer	1909
South Pole	Discovered	Amundsen, Norwegian explorer	1911

The Seven Wonders of the World

THE PYRAMIDS OF EGYPT

A group of three pyramids, *Khufu, Khafra* and *Menkaura* at Giza, outside modern Cairo, is often called the first wonder of the world; it is also the oldest and only surviving "wonder." The largest pyramid, built by Khufu (Cheops), had an original estimated height of 482 ft. (now approximately 450 ft.). The exact date of its construction is unknown but has been variously estimated as early as 4700 B.C. or as late as 2900 B.C.

HANGING GARDENS OF BABYLON

Often listed as the second wonder, these gardens were supposedly built by Nebuchadnezzar about 600 B.C. to please his queen, Amuhia. They are also associated with the mythical Assyrian Queen, Semiramis. Archeologists surmise that the gardens were laid out atop a vaulted building, with provisions for raising water. The terraces were said to rise from 75 to 300 ft.

The Walls of Babylon, also built by Nebuchadnezzar, are sometimes referred to as the second (or the seventh) wonder instead of the Hanging Gardens.

STATUE OF ZEUS (JUPITER) AT OLYMPIA

The work of Phidias (5th century B.C.), this colossal figure in gold and ivory was reputedly 40 ft. high. All trace of it is lost, except for reproductions on coins.

TEMPLE OF ARTEMIS (DIANA) AT EPHESUS

A beautiful structure, begun about 350 B.C. in honor of a non-Hellenic goddess who later became identified with the Greek goddess of the same name. The temple, with Ionic columns 60 feet high, was destroyed by invading Goths A.D. 262.

MAUSOLEUM AT HALICARNASSUS

This famous monument was erected by Queen Artemisia in memory of her husband, King Mausolus of Caria in Asia Minor, who died in 353 B.C. Some remains of the structure are in the British Museum. This shrine is the source of the modern word "mausoleum."

COLOSSUS AT RHODES

This bronze statue of Helios (Apollo), about 105 ft. high, was the work of the sculptor Chares, who reputedly labored for 12 years before completing it in 280 B.C. It was destroyed during an earthquake in 224 B.C.

PHAROS OF ALEXANDRIA

The seventh wonder was the Pharos (lighthouse) of Alexandria, built by Sostratus of Cnidus during the 3rd century B.C. on the island of Pharos off the coast of Egypt. It was destroyed by an earthquake in the 13th century.

Population, Land Areas of the World and World Elevations

Area	Estimated population, in thousands	Approximate area, in thousands of sq. mi.	Per cent of total land area	Population density per sq. mi.	Elevation, feet: Highest	Elevation, feet: Lowest	Dimensions, miles: East–West	Dimensions, miles: North–South
WORLD	2,388,939	58,063	100.0	41.1	Mt. Everest, Asia, 29,002	Dead Sea, Asia, 1,290 below sea level	24,902	24,860
ASIA, excluding Asiatic U.S.S.R.; including Philippines and Neth. Indies	1,274,211	10,576	18.2	120.5	Mt. Everest, Tibet-Nepal, 29,002	Dead Sea, Palestine-Jordan, 1,290 below sea level	5,400*	5,300*
AFRICA	191,410	11,611	20.0	16.5	Mt. Kilimanjaro, Tanganyika, 19,565	Qattara Depression, Egypt, 440 below sea level	4,600	5,000
NORTH AMERICA	217,192	9,376	16.2	23.2	Mt. McKinley, Alaska, 20,300	Death Valley, Calif., 275 below sea level	3,200	4,000
SOUTH AMERICA	108,465	6,856	11.8	15.8	Mt. Aconcagua, Argentina, 22,835	Sea level	3,200	4,600
ANTARCTICA	Uninhabited	6,000	10.3		Mt. Thorvald Nilson, 15,400	Sea level		
EUROPE, including Iceland; excluding European U.S.S.R.	391,902	1,903	3.3	205.9	Mt. Blanc, France, 15,781	Sea level	3,300†	2,400†
AUSTRALIA	8,179	2,975	5.1	2.7	Mt. Kosciusko, 7,328	Lake Eyre, 38 below sea level	2,400	1,900
OCEANIA, incl. New Zealand and British, U. S., French and Australian territories, possessions, etc.	4,580	330	.6	13.9	Mauna Kea, Hawaii, 13,784	Sea level		
U.S.S.R.	193,000	8,436	14.5	22.9	Mt. Pobedy, 24,409	Caspian Sea, 86 below sea level	5,000	2,500

* Including Asiatic U.S.S.R. † Including European U.S.S.R.

HIGH POPULATION DENSITIES (per square mile)

Monaco	35,593.2	Tangier	646.5	Vatican City	470.6	Korea	343.1
Trieste	1,177.5	Japan	567.2	East Germany	415.2	San Marino	336.3
Netherlands	815.7	United Kingdom	537.8	Italy	399.6	India	313.7
Belgium	734.4	West Germany	502.8	Lebanon	364.8	Luxemburg	298.9

Representative Mountain Peaks of the World

Mountain peak	Range	Location	Height, feet
Everest	Himalayas	Tibet-Nepal	*29,002
Godwin Austen (K2)	Himalayas	Union of India	28,250
Kanchenjunga	Himalayas	Nepal	28,140
Gurla Mandhata	Himalayas	Tibet	25,355
Tirich Mir	Hindu Kush	Pakistan	25,230
Minya Konka	.....	China	24,606
Muztagh Ata (K5)	Pamirs	Sinkiang	24,388
Chumalhari	Himalayas	Tibet-Bhutan	23,997
Muztagh	Kunlun	Sinkiang	23,890
Aconcagua	Andes	Argentina	22,835
Ojos del Salado	Andes	Argentina-Chile	22,408
Huascarán	Andes	Peru	22,205
Kailas	Himalayas	Tibet	22,028
Llullaillaco	Andes	Argentina-Chile	22,014
Mercedario	Andes	Argentina	21,883
Tupungato	Andes	Argentina-Chile	21,489
Sajama	Andes	Bolivia	21,391
Chimborazo	Andes	Ecuador	20,577
McKinley	Alaska	Alaska	20,300
Logan	St. Elias	Canada (Yukon Territory)	19,850
Kilimanjaro	.....	Tanganyika	19,565
Cotopaxi	Andes	Ecuador	19,344
Misti	Andes	Peru	19,167
Cayambe	Andes	Ecuador	19,016
Orizaba (Citlaltepetl)	Sierra Madre Oriental	Mexico	18,696
Elbrus	Caucasus	U.S.S.R.	18,468
St. Elias	St. Elias	Alaska-Canada	18,008
Vilcanota	Andes	Peru	17,998
Popocatepetl	Cordillera de Anáhuac	Mexico	17,883
Cerro de Cuz	Andes	Bolivia	17,828
Ixtaccihuatl	Cordillera de Anáhuac	Mexico	17,338
Tolima	Andes	Colombia	17,109
Dikh-Tau	Caucasus	U.S.S.R.	17,054
Kenya	.....	Kenya	17,040
Ruwenzori	Ruwenzori	Belgian Congo-Uganda	16,795
Kazbek	Caucasus	U.S.S.R.	16,545
Bona	St. Elias	Alaska	16,420
Klyuchevskaya	Kamchatka	U.S.S.R.	15,912
Savalan	Elburz	Iran	15,784
Blanc	Alps	France	15,781
Fairweather	St. Elias	Alaska	15,287
Dashan	Simen	Ethiopia	15,158
Markham	.....	Antarctica	15,102
Matterhorn	Alps	Switzerland	14,780
Whitney	Sierra Nevada	California	14,495
Fisherman Peak	Sierra Nevada	California	14,448
Elbert	Rockies	Colorado	14,431
Rainier	Cascades	Washington	14,408
Longs Peak	Rockies	Colorado	14,255
Colima	Sierra Madre Occidental	Mexico	14,239
Shasta	Sierra Nevada	California	14,161
Pikes Peak	Rockies	Colorado	14,109
Finsteraarhorn	Alps	Switzerland	14,026
Gannett Peak	Rockies	Wyoming	13,785
Mauna Loa	.....	Hawaii	13,675
Jungfrau	Alps	Switzerland	13,667
Cameroon	.....	British Cameroons	13,353
Erebus	.....	Antarctica	13,202
Robson	Rockies	British Columbia	12,972
Fujiyama (Fujisan)	.....	Japan	12,385
Cook	Southern Alps	South Island, New Zealand	12,349
Hood	Cascades	Oregon	11,245

* Reported to have increased by 198 ft. during earthquake of Aug. 15, 1950.

Large Islands of the World

Island and status	Location	Area, sq. mi.
GREENLAND (Danish colony)	North Atlantic	839,782
NEW GUINEA (Temporarily under Dutch crown [status unsettled], west part; U. N. trust territory under Australian administration, northeast part; Australian territory, southeast part)	Southwest Pacific	312,329
BORNEO (United States of Indonesia, south part; British protectorate and colonies, north part)	South China Sea	290,012
MADAGASCAR (French overseas territory)	Off east coast of Africa	228,589
BAFFIN (Canada, Northwest Territories)	Arctic	201,600
SUMATRA (United States of Indonesia)	Indian Ocean	163,145
HONSHU (Japanese home island)	Sea of Japan—Pacific	91,278
GREAT BRITAIN (Eng., Scotland, Wales)	Off coast of northwest Europe	88,133
VICTORIA (Canada, Northwest Territories)	Arctic	80,450
ELLESMERE (Canada, Northwest Territories)	Arctic Ocean	75,024
CELEBES (United States of Indonesia)	Southwest Pacific	69,255
SOUTH ISLAND, NEW ZEALAND	South Pacific	58,093
JAVA (United States of Indonesia)	Indian Ocean	48,504
NORTH ISLAND, NEW ZEALAND	South Pacific	44,281
NEWFOUNDLAND	North Atlantic	42,734
CUBA (Republic)	Caribbean Sea	42,350
LUZON	Philippine Islands	40,814
ICELAND (Republic)	North Atlantic	39,688
MINDANAO	Philippine Islands	36,906
HOKKAIDO (Japanese home island)	Sea of Japan—Pacific	34,084
IRELAND (Ireland, republic, south part; Northern Ireland, part of United Kingdom)	West of Great Britain	31,840
HISPANIOLA (Dominican Republic, east part; Haitian republic, west part)	Caribbean Sea	30,075
TASMANIA (Australian state)	South of Australia	26,215
BANKS (Canada, Northwest Territories)	Arctic	25,992
CEYLON (British dominion)	Indian Ocean	25,332
SAKHALIN (U.S.S.R.)	North of Japan	24,560
DEVON (Canada, Northwest Territories)	Arctic	20,484
TIERRA DEL FUEGO (East part to Argentina; west part to Chile)	Southern tip of South America	18,530
MELVILLE (Canada, Northwest Territories)	Arctic Ocean	16,164
SOUTHAMPTON (Canada, N. W. Territories)	Hudson Bay	16,114

Oceans and Seas

Name	Area, sq. mi.	Average depth, feet	Greatest known depth, ft.	Place of greatest known depth
Pacific Ocean	63,801,700	14,048	34,440	Off Mindanao
Atlantic Ocean	31,830,800	12,880	30,246	Off Puerto Rico
Indian Ocean	28,356,300	13,002	22,968	Off Sumatra-Java
Arctic Ocean	5,440,200	3,953	17,850	77° 45′ N.; 175° W.
Mediterranean Sea*	1,145,100	4,688	15,564	Off Cape Matapan, Greece
Caribbean Sea	1,049,500	8,685	22,788	Off Cayman Islands
South China Sea	895,400	5,419	18,090	West of Luzon
Bering Sea	875,800	4,714	13,422	Off Buldir Island
Gulf of Mexico	618,200	4,874	12,744	Sigsbee Deep
Okhotsk Sea	589,800	2,749	11,400	146° 10′ E.; 46° 50′ N.
East China Sea	482,300	617	9,126	25° 16′ N.; 125° E.
Hudson Bay	475,800	420	600	Near entrance
Sea of Japan	389,100	4,429	12,276	Central Basin
Andaman Sea	308,000	2,854	12,392	Off Car Nicobar Island
North Sea	222,100	308	2,165	Skagerrak
Red Sea	169,100	1,611	7,254	Off Port Sudan
Baltic Sea	163,000	180	1,380	Off Gottland

* Including Black Sea and Sea of Azov. NOTE: For Caspian Sea, see Large Lakes of World elsewhere in this section.

Famous Waterfalls of the World

Waterfall	Location	River	Height, feet
Angel	Venezuela	.....	3,300
Cuquenán, or Kukenaam	Venezuela-British Guiana	Cuquenán	2,000
Sutherland	South Island, N. Z.	Arthur	1,904
Tugela	Natal, South Africa	Tugela	1,800
Ribbon (Yosemite)	California	Creek, flowing into Yosemite	1,612
Upper Yosemite	California	Yosemite Creek, tributary of Merced	1,430
Gavarnie	Southwestern France	Gave de Pau	1,385
Takkakaw	British Columbia	Tributary of Yoho	1,200
Widow's Tears (Yosemite)	California	Tributary of Merced	1,170
Staubbach	Switzerland	Staubbach (Lauterbrunnen valley)	980
Trummelbach	Switzerland	Trummelbach (Lauterbrunnen)	950
Middle Cascade (Yosemite)	California	Yosemite Creek, tributary of Merced	910
Multnomah	Oregon	Multnomah Creek, tributary of Columbia	850
Vettisfos	Norway	Morkedöla	850
King Edward VII	British Guiana	Courantyne	840
Gersoppa	India	Sharavati	830
Kaieteur	British Guiana	Pataro	741
Kalambo	Tanganyika-N. Rhodesia	.....	705
Fairy (Mt. Rainier Park)	Washington	Stevens Creek	700
Maradalsfos	Norway	Stream flowing into Ejkisdalsvand (lake)	650
Skykkjefos	Norway	In Skykkjedal (valley) of Inner Hardanger Fiord	650
Terni	Italy	Velino, tributary of Nera	650
Maletsunyane (Le Bihan)	Basutoland, Africa	Maletsunyane	630
Bridal Veil (Yosemite)	California	Bridal Veil Creek, tributary of Merced	620
Nevada (Yosemite)	California	Merced	594
Voringfos	Norway	Bjoreia	535
Skjaeggedalsfos	Norway	Tyssaå	525
Marina	British Guiana	Tributary of Kuribrong, a tributary of the Pataro	500
Tequendama	Colombia	Bogotá	450
King George's	Cape Province, South Africa	Orange	450
Herval Cascades	Brazil	.....	400
Guayra	Paraguay-Brazil	Paraná	374
Illilouette (Yosemite)	California	Illilouette Creek, tributary of Merced	370
Granite (Mt. Rainier Park)	Washington	Granite Creek	350
Splendor of Sun	Nikko, Japan	.....	350
Victoria	Southern Rhodesia	Zambezi	343
Comet (Mt. Rainier Park)	Washington	Van Trump Creek	320
Lower Yosemite	California	Yosemite Creek	320
Vernal (Yosemite)	California	Merced	317
Virginia	Northwest Territories, Canada	South Nahanni, tributary of Mackenzie	315
Lower Yellowstone	Wyoming	Yellowstone	308
Grand	Labrador, Canada	Hamilton	302
Sluiskin (Mt. Rainier Park)	Washington	Paradise	300
Snoqualmie	Washington	Snoqualmie	270
Seven Falls	Colorado	.....	266
Tallulah	Georgia	Tallulah	251
Shoshone	Idaho	Snake	195
Narada (Mt. Rainier Park)	Washington	Paradise	168
Niagara	New York-Ontario	Niagara	167
Tower (Yellowstone)	Wyoming	Tower Creek, tributary of Yellowstone	132

PRINCIPAL DESERTS OF THE WORLD

Desert	Location	Approximate size	Approximate elevation, ft.	Features
Atacama	North Chile	400 mi. long	7,000–13,500	Rugged. Rich in minerals, particularly nitrates.
Black Rock	Northwest Nevada	70 mi. long and in places 20 mi. wide, or about 1,000 sq. mi.	2,000–5,000	Usually dry, with a white alkali crust. Serves as the "sink" of the Quinn River and at times covered with water a few inches deep.
Colorado	Southeast California from San Gorgonio Pass to Gulf of California	200 mi. long and a maximum width of 50 mi.	Few feet above to about 250 below sea level	Average 90° F. Has reached 125° F. in the shade. Contains Salton Sea (overflow of Colorado).
Dasht-i-Kavir	Southeast of Caspian Sea in Iran		2,000	A salt depression. Vast deposits of solid rock salt.
Dasht-i-Lut	Northeast of Kerman in Iran		1,000	Sand desert.
Gobi (Shamo or "Desert of Sand")	Covers most of Mongolia	800 by 400 mi., or at least 300,000 sq. mi.	3,000–5,000	Sandy soils with much alkali. Some well-watered areas. Several caravan routes. Fossil remains.
Great Arabian	Most of Arabia	1,500 mi. long		Series of arid plateaus with scattered oases.
Syrian (El Hamad)	North of 30° N. Latitude		1,850	Stony with numerous wadis (dry stream beds).
Nefud (Red Desert)	South of Jauf	400 mi. long and average of 200 mi. wide	3,000	Almost waterless but rich in pasture in the rainy season (winter and spring). Large sand dunes.
Dahna	Southeast of Nefud	400 by 30 mi.		Waterless but rich in pasture in winter and spring.
Rub' al Khali	South portion of Nejd			
Great Australian (Includes: Great Sandy;	Western portion of Australia Gibson; Great Victoria; Arunta.)	About one-half the continent	600–1,000	Areas of "fixed dunes" and stony ("gibbers") wastes.
Great Salt Lake	West of Great Salt Lake to Nevada-Utah line.	80 by 50 mi.	4,500	Salt desert with numerous salt flats. Some used in setting world automobile speed records.
Kalahari	South Africa between the Orange and Zambezi Rivers	400 by 600 mi., or about 120,000 sq. mi.	Over 3,000	Mild climate. Red sand. Some vegetation and game.
Kara Kum (Desert of Khiva or "Black Sands")	Southwest Turkestan south of Lake Aral	110,000 sq. mi.		Flat sandy wastes interspersed with broad expanses of clay soil. Water found only in wells.
Kizil Kum	Central Turkestan southeast of Lake Aral	370 by 220 mi., or about 70,000 sq. mi.	160 near Lake Aral to 2,000 in southeast	Arid grazing land. Numerous sand dunes moving southeast.
Mohave	North of Colorado Desert and south of Death Valley in southeast California	15,000 sq. mi.	2,000	Temperature range 70°–125° F. during summer months. Hot dry alkali flats interspersed with salt-pans or lakes. Scanty vegetation.
Painted Desert	Northeast Arizona	75 mi. wide	High plateau 5,000	Mild climate. Named for its bright colorful rocks.
Sahara	Northern states of Africa to about 15° N. Lat. and from Red Sea to the Atlantic Ocean	3,200 mi. greatest length along 20° N. Lat.; width varies from 800 to 1,400 mi. Area over 3,500,000 sq. mi.	440 below sea level to 11,000 above with an average elevation of 1,400–1,600	Varied surface. East Libyan desert is sand; central part contains rocky hills and mountains; west consists of low stony plains and dunes. Crossed by chain of oases. Well-marked caravan routes.
Libyan	East portion of the Sahara west of Nile	More than 500,000 sq. mi.		Series of deep depressions, some below sea level. Famous caravan routes through oases such as Kharga, Dakhla, Farafra, Bahariya, Siwa and Cufra.
Nubian	From Red Sea to great west bend of the Nile		2,500	Sand and rock desert with some small fertile oases
Takla Makan	S. Central Sinkiang in Tarim Basin	700 mi. long		Extremes of climate: —22°–86° F. in April. Uninhabited. Can be safely crossed only in winter. Marco Polo left a vivid description of this desert.
Thar (Indian)	Chiefly Rajputana, Union of India	About 300 mi. by 380 mi.	About 500	Sandy with strips of cultivable land.

Principal Rivers of the World

River	Source	Outflow	Approx. length, miles
Nile	Lake Victoria	Mediterranean Sea	4,000
Missouri-Mississippi	Source of Red Rock Creek, Montana	Gulf of Mexico	3,988
Amazon	Glacier-fed lakes in Peru	Atlantic Ocean	3,900
Ob	Altai Mts., U.S.S.R.	Gulf of Ob	3,200
Yangtze Kiang	Tibetan plateau	China Sea	3,100
Amur	Confluence of Shilka (U.S.S.R.) and Argun (Manchuria) Rivers	Tartary Strait	2,900
Congo	Between Lakes Nyasa and Tanganyika	Atlantic Ocean	2,900
Lena	Baikal Mts., U.S.S.R.	Arctic Ocean	2,800
Yenisei	Tannu Ola Mountains, western Mongolia	Arctic Ocean	2,800
Hwang Ho (Yellow)	East part of Kunlun Mts., west China	Gulf of Chihli	2,700
Niger	Border of Sierra Leone	Gulf of Guinea	2,600
Mackenzie	Head of Finlay River, British Columbia	Beaufort Sea (Arctic Ocean)	2,514
Mékong	Tibetan highlands	South China Sea	2,500
Missouri	Actual headwaters Red Rock Creek; beginning of Missouri at confluence of Gallatin, Madison, Jefferson Rivers	Mississippi River	2,475 (confluence) 2,723 (headwaters)
Mississippi	Lake Itasca, Minnesota	Gulf of Mexico	2,470
Paraná	Confluence of Paranaiba and Grande Rivers, southeast Brazil	Río de la Plata (Atlantic Ocean)	2,450
Murray	Australian Alps, New South Wales	Indian (Southern) Ocean	2,310
Irtish	Altai Mts., U.S.S.R.	Ob River	2,300
Volga	Valdai plateau, U.S.S.R.	Caspian Sea	2,300
Madeira	Confluence of Gauporé and Maumoré Rivers on Bolivia-Brazil boundary	Amazon River	2,000
St. Lawrence	St. Louis River, Minn.	Gulf of St. Lawrence	1,900
Rio Grande	San Juan Mts., Colorado	Gulf of Mexico	1,800
São Francisco	Southwest Minas Geraes, Brazil	Atlantic Ocean	1,800
Yukon	Junction of Lewes and Pelly, Yukon Territory	Bering Sea	1,800
Salween	Tibet, south of Kunlun Mountains	Gulf of Martaban	1,750
Danube	Black Forest, Germany	Black Sea	1,725
Euphrates	Dumlu Dagh (mountains), Turkey	Persian Gulf	1,700
Indus	Himalayas	Arabian Sea	1,700
Orinoco	Sierra Parima on Venezuela-Brazil boundary	Atlantic Ocean	1,700
Tocantins	Near Pyrenopolis, southeast Brazil	Pará River (Atlantic Ocean)	1,700
Brahmaputra	Himalayas	Ganges River (Bay of Bengal)	1,680
Nelson	Head of Bow River, west Alberta, Canada	Hudson Bay	1,660
Si Kiang	Plateau of Yunnan, southwest China	China Sea	1,650
Zambezi	11°21′S.; 24°22′E., Northern Rhodesia, Africa	Indian Ocean	1,600
Ganges	Himalayas	Bay of Bengal	1,540
Amu Darya (Oxus)	Nicholas Range, Pamir Mountains, U.S.S.R.	Lake Aral	1,500

River	Source	Outflow	Approx. length, miles
Paraguay	Mato Grosso, Brazil	Paraná River	1,500
Yapurá	Andes, Colombia	Amazon River	1,500
Arkansas	Central Colorado	Mississippi River	1,450
Colorado	Middle Park, northern Colorado	Gulf of California	1,440
Dnieper	Valdai Hills, U.S.S.R.	Black Sea	1,400
Negro	Watershed between Orinoco and Amazon	Amazon River	1,400
Ural	Southern Ural Mountains, U.S.S.R.	Caspian Sea	1,400
Ohio-Allegheny	Plateau in Potter County, Pa.	Mississippi River	1,306
Orange	Basutoland, Africa	Atlantic Ocean	1,300
Irrawaddy	Confluence of N'mai and Mali Rivers, northeast Burma	Bay of Bengal	1,250
Columbia	Columbia Lake, British Columbia	Pacific Ocean	1,214
Saskatchewan	Western Alberta, Canada	Lake Winnipeg	1,205
Darling	Central part of Eastern Highlands, Australia	Murray River	1,160
Tigris	Taurus Mts., Turkey	Euphrates River (Persian Gulf)	1,150
Don	Lake Ivan, U.S.S.R.	Sea of Azov	1,100

Large Lakes of the World

Name and location	Area, sq. mi.	Length, miles	Maximum depth, feet	Elevation above sea level, feet
Caspian, U.S.S.R.–Iran†	169,300	795	3,612	–86
Superior, U. S. A.–Canada	31,820	383	1,290	602
Aral, U.S.S.R.	26,233	280	222	155
Victoria, East Central Africa	26,200	250	270	3,720
Huron, U. S. A.–Canada	23,010	247	750	580
Michigan, U. S. A.	22,400	321	923	580
Baikal, U.S.S.R.	13,300	411	5,413	1,515
Tanganyika, East Central Africa	12,700	450	4,708	2,536
Great Bear, Canada	12,000	195	270*	391
Great Slave, Canada	11,170	325	——	495
Nyasa, Southern Africa	11,000	350	2,580	1,650
Erie, U. S. A.–Canada	9,940	241	210	572
Winnipeg, Canada	9,398	260	70	712
Ontario, U. S. A.–Canada	7,540	193	778	245
Balkhash, U.S.S.R.	7,115	430	36	900
Ladoga, U.S.S.R.	7,000	125	730	55
Onega, U.S.S.R.	3,764	145	408	125
Rudolf, Eastern Africa	3,475	185	——	1,250
Titicaca, Bolivia–Peru	3,200	125	892	12,507
Nicaragua, Nicaragua	3,089	110	200	135
Athabaska, Canada	3,058	195	——	699
Reindeer, Canada	2,444	155	——	1,150
Issyk-Kul, U.S.S.R.	2,230	115	2,300	5,400
Koko Nor, China	2,200	66	——	10,000
Vänern, Sweden	2,143	87	292	144
Winnipegosis, Canada	2,086	122	38	831
Bangweulu, East Central Africa	1,900	60	15	3,700
Nipigon, Canada	1,870	70	——	852
Manitoba, Canada	1,817	120	12*	813
Urmia, Iran	1,750*	80–90	16	4,184
Albert, Uganda, Africa	1,640	100	50	2,037
Dubawnt, Canada	1,600	65	——	500
Great Salt, U. S. A.	1,500	75	15–25*	4,200
Van, Turkey	1,453	80	——	5,643

* Average. † The name Caspian *Sea* is a misnomer; it is a land-locked lake, so classified by oceanographers.

Volcanoes of the Earth

There are approximately 430 volcanoes (275 in the Northern Hemisphere and 155 in the Southern) with recorded eruptions in historical times. Of the 2,500 recorded eruptions, more than 2,000 have taken place in the Pacific area. Of known active volcanoes, 80 are of the submarine type.

ATLANTIC-INDIAN AREA

Mediterranean Region

Italy: Mt. Vesuvius, southeast of Naples (3,858 ft.). Only active volcano on mainland of Europe. Pompeii buried by an eruption, A.D. 79. Latest eruption in 1944.

Sicily: Mt. Etna, eastern Sicily (10,741 ft.). Two new craters formed in eruptions of Feb.–Mar., 1947. Worst eruption in 50 years occurred Nov., 1950–Jan., 1951.

Lipari Islands (north of Sicily): Stromboli (about 3,000 ft.). Called "Lighthouse of the Mediterranean." Erupted 1951.

Atlantic Area

Canary Islands: Pico de Teide (Teneriffe), on island of Teneriffe (12,192 ft.).

Cape Verde Islands: Fogo (over 8,000 ft.). Severe eruption in 1857; last until 1951.

Iceland: At least 25 volcanoes active in historic times. Has exceeded all other volcanic areas in output of lava. These volcanoes very similar to those in Hawaii.

Hekla (4,747 ft.). Several craters, largest about 1¼ mi. in circumference. Most recent eruptions reported in 1947–48.

Skaptarjökull. Series of volcanoes near Skaptar; erupted in 1783 with large loss of life.

Askja (4,600 ft.). Largest in Iceland.

Jan Mayen Island: Beerenberg, northern part of island (over 8,000 ft.). Extinct.

British Cameroons: Mt. Cameroon (13,353 ft.). Has several craters. Last erupted in 1922.

Lesser Antilles (West Indian Islands): Mt. Pelée, in northwestern Martinique (about 4,400 ft.). Eruption in 1902 destroyed town of St. Pierre and killed approximately 40,000.

Indian Ocean Region

Comoro Islands (east of northern Mozambique): One volcano, Kartala (over 8,500 ft.). Visible for over 100 miles. Last erupted in 1904.

Réunion Island (east of Madagascar): Piton de la Fournaise (Le Volcan) (8,610 ft.). Eruptions in the form of large lava flows.

Tanganyika Territory: Kilimanjaro (19,565 ft.). Extinct. Highest mountain in Africa.

THE PACIFIC AREA

Northwest Portion

Kamchatka: 14–18 active volcanoes.

Shiveluch (over 10,500 ft.). Most northerly volcano of Kamchatka group.

Klyuchevskaya (Kluchev) (15,912 ft.). Highest peak in Siberia; called the "Etna of Kamchatka." Reported active in 1946.

Koryatskaya (over 11,500 ft.). Violent eruption in 1895.

Kurile Islands: At least 13 active volcanoes and several submarine outbreaks.

Japan: at least 33 active vents.

Fujiyama (Fujisan), southwest of Tokyo (12,385 ft.). Symmetrical in outline, snow-covered. Regarded as a sacred mountain.

Adzumayama (7,733 ft.). Eruption in 1900 killed 82.

Asamayama (8,182 ft.). Continuously active; violent eruption in 1783; latest in 1950.

Asosan (5,223 ft.). Crater 10 by 15 miles is the largest known in the world; erupted most recently in 1949.

Bandaisan, about 125 miles north of Tokyo (9,037 ft.). Violent eruption in 1888 devastated a 27-square-mile area.

Two volcanic islets south of Japan emerged in the ocean for a brief time in 1946, then submerged.

Ryukyu archipelago: Nakano-shima (3,485 ft.); Suwanose-shima (2,697 ft.).

Bonin (Ogasawara) Islands: Mt. Suribachi, on Iwo Jima (546 ft.). A sulfurous steaming volcano. Raising of U. S. flag over Mt. Suribachi was one of the dramatic episodes of World War II.

New Britain archipelago: Numerous active vents, including Father, on New Britain (7,500 ft.).

Santa Cruz Islands: Tinakula (2,200 ft.).

New Hebrides: Lopevi (4,755 ft.).

Samoan archipelago: Savaii. An eruption in 1905 did considerable damage. Niuafoou (Tin Can) between Samoa and Fiji Islands has a crater 6,000 feet below and 600 feet above water. Active in 1946.

Philippine Islands: about 100 eruptive centers; eruption of Hibok Hibok on Camiguin island in Sept., 1950, reported to have killed 85.

Taal, on Volcano Island in Lake Bombon (about 1,000 ft.). Crater over 7,500 ft. in diameter.

Mayon, in southeastern Luzon (7,946 ft.). An almost perfect cone. Continuous mild activity. In 1897 there was a destructive eruption. Considerable activity in 1947.

Moluccas: A volcanic chain of islands which contains several active volcanoes.

Hawaiian Group:

Mauna Loa (13,675 ft.). Also called "Long Mountain." Discharges more lava than any other volcano. Largest volcanic mountain in the world in cubic content, with crater of 3.7 sq. mi. Violent eruption in June, 1950, with lava pouring 25 mi. into the ocean.

Mauna Kea (13,784 ft.). Highest mountain in group.

Hualalai (8,269 ft.). Has many small pit craters. Only lava flow in historic times was in 1801.

Kilauea (4,090 ft.). A vent in side of Mauna Loa but apparently erupts independently of it. One of the most spectacular and active craters. Crater has an area of 4.14 sq. mi.

Southwest Portion

Sumatra: Ninety volcanoes have been discovered; 12 are now active. The most famous, Krakatoa, is a small volcanic island in the Sunda Strait. Numerous volcanic discharges occurred in 1883. One explosion caused the disappearance of the highest peak and the northern part of the island. Fine dust was carried around the world in the upper atmosphere. Over 36,000 persons lost their lives in resultant tidal waves, which were felt as far away as Cape Horn. Active again in 1928 and July, 1950.

Java: Thirteen of 125 volcanic centers are active. Few serious eruptions. Galunggung is famous for two destructive eruptions in 1822. It is thought that over 100 villages and about 4,000 lives were lost.

Lesser Sunda Islands: Fifteen eruptive cones. Tamboro on Soembawa (Sumbawa) (about 9,000 ft.) was 13,000 ft. prior to a severe eruption in 1815, which ejected an estimated 36 cu. mi. of material.

Melanesian area: Volcanoes are located on New Guinea, New Hebrides, Santa Cruz, Solomons, and on numerous other small islands. Eruption of Mt. Lamington in Papua Territory, New Guinea, in Jan., 1951, killed more than 3,000.

New Zealand: Tarawera, on North Island. Severe eruption in 1886 destroyed the famous pink and white sinter terraces of Rotomahana, a hot lake.

Ngauruhoe (7,515 ft.). Emits steam and vapor incessantly.

Northeast Portion

Aleutian area: There are 32 active vents known, and numerous inactive cones in remarkably straight line.

Shisaldin, on Unimak (8,683 ft.). Latest eruption Jan., 1947.

Bogosloff, on Bogosloff island (Castle) (about 1,000 ft.). Mountain first appeared after an eruption in 1796.

Alaska:

Wrangell (14,005 ft.).

Katmai (about 7,500 ft.). On June 6, 1912, a violent eruption occurred, during which the "Valley of Ten Thousand Smokes" was formed. Erupted 1951.

United States: Lassen Peak, in California (10,453 ft.). Only observed active volcano in the United States. Last period of activity in 1914–17. Other mountains of volcanic origin include Mt. Shasta, Mt. Hood, Mt. Rainier, and the mountain that contains Crater Lake.

Mexico:

Popocatepetl (17,883 ft.). Crater 673 ft. deep and 2½ mi. in circumference. Not entirely extinct; steam still escapes.

Colima (14,239 ft.), in group that has had frequent eruptions.

Orizaba (Citlaltepetl) (18,696 ft.). Probably the most symmetrical volcanic cone.

Tuxtla (4,900 ft.). Had a violent eruption in 1793 but is now quiescent.

Paricutín. A new volcano. First appeared in Feb., 1943, in a cornfield. In less than a week a cone over 140 ft. high developed with a crater one quarter mile in circumference. Cone grew over 1,500 ft. in 1943.

Guatemala:

Santa María Quezaltenango (12,361 ft.). Frequent activity between 1902–08 and 1922–28 after centuries of quiescence. Most dangerously active vent of Central America. Other volcanoes include Tajumulco (13,814 ft.) and Atitlán (11,633 ft.).

El Salvador: Izalco, "beacon of Central America," which first appeared in 1770 and is still growing (erupted in July, 1950); San Salvador, which had a violent eruption in 1923 and Conchagua, which erupted with considerable damage early in 1947.

Nicaragua: Volcanoes include Telica (latest eruption in 1950), Coseguina, and Momotombo (4,126 ft.). Between Momotombo on the western shore of Lake Managua and Coseguina overlooking the Gulf of Fonseca, there is a string of more than 20 cones, many still active. One of these, Cerro Negro, erupted in July, 1947, with considerable damage and loss of life, and again in 1948–50.

Costa Rica: Four volcanic cones whose bases merge are Poás (8,895 ft.), Barba (9,280 ft.), Irazú (10,525 ft.), and Turrialba (11,350 ft.).

Southeast Portion

Colombia: Huila (18,700 ft.), a vapor-emitting volcano, and Tolima (17,109 ft.).

Eruption of Puracé (15,420 ft.), 1949, killed 17.

Ecuador: Cotopaxi (19,344 ft.). Perhaps highest active volcano in the world. Possesses a beautifully formed cone.

Cayambe (19,016 ft.). Almost on equator.

Other volcanoes include Tunguragua (16,689 ft.), Sangay (17,470 ft.), and Antisana (over 18,000 ft.).

Peru and Bolivia: Many active volcanoes.

Misti, near Arequipa, Peru (19,167 ft.).

Sajama, in Bolivia (21,391 ft.).

Licancábur, in Bolivia (about 19,500 ft.).

Chile and Argentina: About 25 active or potentially active; destructive eruption of Villarrica, Chile, 1948; active in 1949.

Interesting Caves and Caverns of the World

Aggtelek. In village of same name, northern Hungary. Large stalactitic cavern about 5 miles long.

Altamira Cave. Near Santander, Spain. Contains animal paintings (Old Stone Age art) on roof and walls.

Antiparos. On island of same name in the Grecian Archipelago. Some stalactites are 20 ft. long. Brilliant colors and fantastic shapes.

Blue Grotto. On island of Capri, Italy. Cavern hollowed out in limestone by constant wave action. Now half filled with water because of sinking coast. Name derived from unusual blue light permeating the cave. Source of light is a submerged opening, light passing through the water.

Carlsbad Caverns. Southeast New Mexico. Largest underground labyrinth yet discovered. Three levels: 754; 900, and 1,320 feet below the surface.

Fingal's Cave. On island of Staffa off coast of western Scotland. Penetrates about 200 ft. inland. Contains basaltic columns almost 40 ft. high.

Ice Cave. Near Dobsina, Czechoslovakia. Noted for its beautiful crystal effects.

Jenolan Caves. In Blue Mountain plateau, New South Wales, Australia. Beautiful stalactitic formations.

Kent's Cavern. Near Torquay, England. Source of much information on Paleolithic man.

Luray Cavern. Near Luray, Virginia. Has large stalactitic and stalagmitic columns of many colors.

Mammoth Cave. Limestone cavern in central Kentucky. Cave area is about 10 miles in diameter but has at least 150 miles of irregular subterranean passageways at various levels. Temperature remains fairly constant at 54°F.

Peak Cavern or Devil's Hole. Derbyshire, England. About 2,250 ft. into a mountain. Lowest part is about 600 ft. below the surface.

Postumia (Adelsberg) Grotto. Near Postumia in Julian Alps, about 25 miles N.E. of Trieste. Stalactitic cavern, largest in Europe. Piuca (Pivka) River flows through part of it. Caves have numerous beautiful stalactites.

Singing Cave. Iceland. A lava cave; name derived from echoes of people singing in it.

Wind Cave. In Black Hills of South Dakota. Limestone caverns with stalactites and stalagmites almost entirely missing. Variety of crystal formations called "boxwork."

Wyandotte Cave. In Crawford County, southern Indiana. A limestone cavern with five levels of passages; one of the largest in North America. "Monumental Mountain," approximately 135 ft. high, is believed to be one of the world's largest underground "mountains."

Geysers

Geysers exist in many volcanic regions of the world such as Japan and South America, but their greatest development is in Iceland, New Zealand and Yellowstone National Park, Wyoming, U. S. A.

Iceland. The principal geyser area is about 30 miles northwest of Mt. Hekla, where there are more than 100 geysers and hot springs in about two square miles. The main ones are the following:

Great Geyser (*Geysir*). Sends up a column 160 to 180 ft. high intermittently from an opening more than 9 ft. across and about 70 ft. deep.

Strokkr (*Churn*). Constant bubbling and occasional eruptions.

New Zealand. There is a great profusion of boiling springs, steam jets and mud volcanoes northeast of Lake Taupo on North Island. Main geysers are *Waikite*, with a 30–35 ft. column, *Pohutu* and *Waimauku*.

United States

Yellowstone National Park, Wyoming. There are 120 named geysers in Yellowstone and perhaps half that number unnamed. Most of the geysers and the 4,000 hot springs are located in the western portion of the park. The most important:

Norris Geyser Basin has 18 or more geysers; the number varies. There are scores of steam vents and hot springs. *Valentine*, highest in basin, 75 ft. at 18-hour intervals; tube is 60 ft. long. *Minuté*, 15–20 ft. high, several hours apart. Others are small; these include *Steamboat, Fearless, Veteran, Vixen, Corporal* and *Monarch*. Some are dormant.

Lower Geyser Basin. In the 1870's it had 680 hot springs and geysers. Many now are only hot springs, but at least 18 are active geysers. *Fountain*, at one time very well known. Water thrown 75 ft. in all directions and at all angles. Now dormant. *Clepsydra*, very active; some eruption cycles last for several hours; maximum height 75 ft. *Great Fountain* plays every 12 to 13 hours for 30 minutes in spurts which rise from 60 to 80 ft.

Midway Geyser Basin has vast steaming terraces of red, orange, pink and other colors; pools and springs. *Excelsior Geyser* crater discharges boiling water into Firehole River, 6 cu. ft. per second.

Upper Geyser Basin includes: *Artemisia* sends up a column 35 ft. high for 10 to 15 minutes every 18 to 24 hours. *Fan* sends out fan-shaped eruptions about 60 ft. high every 2 or 3 days. *Riverside* has an unusual cone; throws water 75 ft. obliquely over the river from lower crater for half an hour. It has a remarkably regular interval of 8 hours between eruptions.

Rocket jets up to 70 ft. at intervals of 2 to 5 days. When its neighbor, *Grotto*, erupts simultaneously the jet is only 10 ft.

Grotto throws water 20 to 30 ft. for 15 minutes to 8 hours.

Giant erupts to 200 ft. Eruptions last an hour but are 7 days to 3 months apart. A single eruption has been estimated to contain 700,000 gallons.

Daisy sends water to a height of 75 ft. every 135 minutes.

Old Faithful sends up a column about 140 ft. high at average intervals of 65 minutes, varying from 35 to 80 minutes. Eruption lasts about 4 minutes. Discharges about 12,000 gallons at each eruption.

Giantess erupts like a small volcano every six to nine months. The eruption rises to a maximum height of 200 ft. and usually lasts 4½ hours.

Lion group: Lion, Lioness, Big Cub and *Little Cub* erupt irregularly from one to 18 times a day.

Castle is reported to have largest and most imposing cone of any active geyser in the world. Erupts twice a day to a height of 75 ft. but at times throws water continually to about 20 ft.

Mammoth Hot Springs. There are no geysers in this area. The formation is travertine. Sides of a hill are steps and terraces over which flow the steaming waters of hot springs laden with minerals. Each step is tinted by algae to many shades of scarlet, orange, pink, yellow and blue. Terraces are white where no water flows.

Other groups of geysers, hot pools and mud pots are located on the west shore of Shoshone Lake, on West Thumb Bay, at Mud Volcano, in the Grand Canyon of the Yellowstone, and on Mirror Plateau.

Bell Time on Shipboard

A.M.			P.M.		
12:30—1 Bell	4:30—1 Bell	8:30—1 Bell	12:30—1 Bell	4:30—1 Bell	8:30—1 Bell
1:00—2 Bells	5:00—2 Bells	9:00—2 Bells	1:00—2 Bells	5:00—2 Bells	9:00—2 Bells
1:30—3 "	5:30—3 "	9:30—3 "	1:30—3 "	5:30—3 "	9:30—3 "
2:00—4 "	6:00—4 "	10:00—4 "	2:00—4 "	6:00—4 "	10:00—4 "
2:30—5 "	6:30—5 "	10:30—5 "	2:30—5 "	6:30—5 "	10:30—5 "
3:00—6 "	7:00—6 "	11:00—6 "	3:00—6 "	7:00—6 "	11:00—6 "
3:30—7 "	7:30—7 "	11:30—7 "	3:30—7 "	7:30—7 "	11:30—7 "
4:00—8 "	8:00—8 "	noon—8 "	4:00—8 "	8:00—8 "	12:00—8 "

World Extremes of Climate

Highest recorded shade temperature:
World: 136° F. at Azizia, Libya, North Africa, September 13, 1922.
United States: 134° F. at Death Valley, California, July 10, 1913.

Lowest recorded temperature:
World: —90° F. at Verkhoyansk, Siberia, U.S.S.R., February 5 and 7, 1892; a temperature of —94° F. was reported in Siberia during the winter of 1946–47 but was not verified by the Soviet government.
United States: —66° F. at Yellowstone Park, Wyoming, February 9, 1933.

Highest mean annual temperature:
World: 86° F. at Massawa, Eritrea, Africa.
United States: 77.3° F. at Tavernier, Fla.

Lowest mean annual temperature:
World:—14° F. at Framheim, Antarctica.
United States: 27.0° F. at Mt. Washington, N. H. (18-year record).

Maximum rainfall for 24-hour period:
World: 46 inches at Baguio, Luzon, Phillipines, July 14–15, 1911.
United States: 26.12 inches at Camp Leroy, California, January 22–23, 1943.

Maximum recorded rainfall in one month:
366 inches at Cherrapunji, India, July, 1861 (over 150 inches fell in 5 consecutive days in August, 1841). Average annual rainfall at Cherrapunji is 424 inches. A 22-year average annual rainfall of about 450 inches, however, is generally accepted as the value for Mt. Waialeale, Island of Kauai, Hawaiian Islands.

Minimum recorded rainfall:
World: .04 inch at Iquique, Chile, average yearly fall during 40 years.
United States: 1.69 inches at Greenland Ranch, California, average yearly fall during 36 years. During one period of 401 consecutive days, this station recorded no rain.

Average annual precipitation for the United States is about 29 inches.
Louisiana is the wettest state, with an annual average (60 years) of 56.65 inches.

Nevada is the driest state, with an annual average (62 years) of 8.94 inches.
Highest local average annual rainfall in the United States was 150.73 inches at Wynoochee Oxbow, Washington, based on a 13-year record.
Greatest 6-hour fall was at Lake Charles, La.—15.38 inches—on June 19, 1947. Greatest 24-hour rainfall in the U. S. was 38.2 inches at Thrall, Texas, September 9–10, 1921.
Heavy snowfall records include 60 inches in one day at Giant Forest, California; 87 inches in 27½ hours and 96 inches in 32½ hours at Silver Lake, Colorado; and 42 inches in 2 days at Angola, New York. In the New York City blizzard of Dec. 26, 1947, 25.8 inches of snow fell in about 20 hours, almost 5 inches more than fell in the blizzard of March, 1888. Greatest seasonal snowfall was 884 inches, over 73 feet, at Tamarack, California, during 1906–07.
Large hailstones include one 17 inches in circumference and weighing 1½ pounds which fell at Potter, Nebraska, July 6, 1928.

Ancient Empires

The *Egyptian* and *Babylonian* empires, Near Eastern civilizations whose cultures mark the beginning of written history, had their origins in the nebulous period of ancient history prior to the year 4000 B.C. They developed rapidly in the fertile river valleys of the Nile in Egypt and the Tigris-Euphrates in Mesopotamia after the discovery of metals and the invention of writing. Their governments were all-powerful, with the people subjugated and without political rights. The Egyptians regarded their king as a god. In Babylon, the ruler was a priest-king, earthly representative of the gods. Nevertheless, these Near East cultures made great contributions to the eternal march of man; they advanced the ways of making and doing things, produced the earliest literature, developed the principles of law (the code of Hammurabi, Babylonian king of the 18th [or possibly 17th] century B.C., the oldest code of law) and science, learned the basic principles of art, and evolved early religious worship.

The influence of Babylon and Egypt was felt in the rise of the Semitic tribes of Syria, the Hittites in Asia Minor, and the people of the Aegean region. Between the years 1200 and 800 B.C., the small Syrian states grew to great power and then were overwhelmed by the great empire of the *Assyrians,* the warlike peasants of the Tigris valley, who took the lessons learned from the Babylonians and spread that culture over their domains. The Assyrians, like the Egyptians and the Babylonians, in turn fell under the power of the *Persian* kings in the century between 600 and 500 B.C. By 525 B.C., the Persian Empire extended from India to Egypt, the greatest the world had ever seen.

The lessons learned by these early Near Eastern civilizations were transmitted to *Greece,* which developed its illustrious empire in the Aegean region, after the inhabitants of the island of Crete had absorbed the Egyptian culture. The mainland Greeks overthrew the Cretans and in turn were succeeded by the Doric Greeks, who spread their culture across the Aegean, the Asia Minor coast, and into the Mediterranean and Black Sea regions. The characteristic Greek political institution was the city-state, first ruled by kings and often temporary monarchical tyrannies, and finally by the participation of free citizens. Literature and the arts flourished, and by the 5th century B.C., when Athens became the great city of the Greeks, drama had risen to full maturity with the great tragedies of Sophocles and Euripides and the comedies of Aristophanes. Architecture and art advanced apace. The Greeks, learning much from their Egyptian teachers, produced such superb buildings as the Parthenon and created amazingly beautiful statues through the use of living models. Religion, which was closely linked with art, also flourished, as did the development of philosophy, under the great Socrates (470?–399 B.C.), Plato (427?–347 B.C.), and Aristotle (384–322 B.C.). Wars weakened the city-states, and they fell to Alexander the Great in the 4th century B.C.

Last among the great ancient empires was the *Roman,* which developed in Italy and gained control over the Mediterranean region after absorbing the culture of Greece and combining with it new principles of law and art and teaching their new learning to the West. The development of the Roman civilization began in 510 or 509 B.C., when the peoples on the peninsula of Italy freed themselves from the rule of the Etruscans. The Romans, with a republican form of government, speedily conquered Italy and the Mediterranean region, and the Roman governors became men of great wealth, corrupting the city-state system and making it a graft-ridden machine of exploitation. The failure of the government to check this self-seeking influence brought on a revolt which resulted eventually in the rise of Julius Caesar to dictatorship in 46–44 B.C. Caesar's murder in the Senate at Rome was followed in 27 B.C. by the establishment of the one-man rule of Augustus over the Roman Empire. Legal practices were developed and became the foundations of modern law. Great roads, bridges and buildings were constructed. This great ancient civilization began to crumble in the 3d century A.D.

Languages of the World

(spoken by 5,000,000 or more people)

Language	Number speaking
American Indian: including Mayan, Quéchua and 750–1,000 languages and dialects	15,000,000
Amharic (Ethiopia)	5,600,000
Annamese (Indo-China)	20,000,000
Arabic	58,000,000
Bantu: including Swahili, Zulu (S. Africa)	45,000,000
Bengali (India; Pakistan)	63,000,000
Berber dialects (N. Africa)	6,000,000
Bihari (India)	28,000,000
Bisayan (Philippines)	5,500,000
Bulgarian	7,000,000
Burmese	11,000,000
Catalan (Spain)	6,000,000
Chinese: including Mandarin, Cantonese and others	450,000,000
Cushitic: including Somali (Ethiopia)	7,000,000
Czech	8,000,000
Dravidian: including Kanarese, Malayalam, Tamil, Telugu (India)	80,000,000
Dutch	10,000,000
English	225,000,000
Ethiopian: including Amharic	6,400,000
Finno-Ugric: including Estonian, Finnish, Hungarian, Karelian, Lappish	21,500,000
Flemish (Belgium)	5,000,000
French	65,000,000
German	100,000,000
Greek	8,000,000
Gujarati (India)	13,000,000
Hausa (Central Africa)	9,000,000
Hindustani (India; Pakistan)	140,000,000
Hungarian	13,000,000
Indic: including Assamese, Bengali, Bihari, Gujarati, Hindustani, Lahnda, Marathi, Oriya, Punjabi, Rajasthani, Sindhi, Singhalese	325,000,000
Indonesian: including Balinese, Bisayan, Ilocano, Javanese, Malay, Malagasy, Sundanese, Tagalog	80,000,000
Iranian: including Baluchi, Kurdish, Persian, Pushtu	26,500,000
Italian	50,000,000
Japanese	80,000,000
Javanese	32,000,000
Kanarese (India)	13,400,000
Korean	27,000,000
Lahnda (India; Pakistan)	10,000,000
Malay (Neth. Indies)	10,000,000
Malayalam (India)	10,000,000
Marathi (India)	23,000,000
Munda (India)	5,000,000
Oriya (India)	9,600,000
Persian	12,000,000
Polish	30,000,000
Portuguese	60,000,000
Punjabi (India; Pakistan)	18,800,000
Pushtu (Afghanistan; Pakistan)	8,000,000
Rajasthani (India; Pakistan)	15,225,000
Rumanian	16,000,000
Russian	180,000,000
Serbo-Croatian (Yugoslavia)	15,000,000
Siamese	16,000,000
Singhalese (Ceylon)	5,000,000
Spanish	110,000,000
Sudanic: including Hausa (Central Africa)	75,000,000
Sundanese (Neth. Indies)	8,500,000
Swahili (S. Africa)	8,000,000
Swedish	7,000,000
Tai: including Siamese	18,000,000
Tamil (India)	23,850,000
Telugu (India)	27,000,000
Tibeto-Burman: including Tibetan and Burmese	20,000,000
Turkic: including Kazakh, Tartar, Turkish, Uzbek	42,000,000
Turkish	18,000,000
Uzbek (U.S.S.R.)	5,000,000
Yiddish	5,000,000

Universities—Ancient and Modern

Universities, in the modern sense of the term, sprang up in the 12th and 13th centuries in response to the resurgence of learning that preceded the Renaissance in Europe. Procedure at the early universities was informal, with students gathering at some place in a city to listen to a preeminent teacher. There were no campuses, buildings or endowments. Actually, the term "university" once meant a guild or corporation; there were, in the medieval period, "universities" of bootmakers, weavers, etc. Thus the university of learning was similar in organization to the guilds. The students filled the role of apprentices and the teachers were the masters.

The first European university was that of *Salerno* in the 9th century, when it was known as a school of medicine. By the 11th century, it had become one of the most famous medical schools of Europe.

University of Bologna. Organized in 1158 by students as a means of protection against the merchants and citizens of Bologna who had raised prices of food and lodging. It was famous for its legal scholars. The students were organized into two guilds and exercised a great deal of authority over the administration and the professors; they controlled all academic matters except the granting of degrees.

Other Italian universities famed in the Middle Ages included those at *Arezzo, Fer-*

rara, Florence, Modena, Naples, Padua, Pavia, Perugia, Siena and *Vicenza.*

University of Paris. Originated between 1150 and 1170 in a cathedral school on the Ile de la Cité, it was later moved to the left (south) bank of the Seine, although it remained under the authority of the chancellor of Notre Dame. It developed into the most famous continental center of learning of its day. Its four principal schools were theology, medicine, law and arts. By the 14th century, the university had some 40 colleges, of which the *Sorbonne* became the most celebrated.

The universities of Paris and Bologna had a marked influence in the subsequent creation of other university centers. About 1200, there was a migration of students from Paris to *Oxford* (founded in the 12th century) and a decade or two later, from Oxford to *Cambridge* (also founded in the 12th century).

Other famous universities of the Middle Ages include the *University of Toulouse* (1233), *Salamanca* (1243), *Seville* (1254), *Orléans* (1305), *Valladolid* (1346), *Prague* (1347), *Kraków* (1364), *Vienna* (1364), *Erfurt* (1379), *Heidelberg* (1385), *Cologne* (1388), *Leipzig* (1409), *Rostock* (1419) and *Louvain* (1426).

The Renaissance

The Renaissance gave fresh impetus to the universities of Europe. In France three of importance arose in the 15th century —the *University of Aix* (1409, Provence), the *University of Poitiers* (1431) and the *University of Caen* (1437).

Other French institutions of note that arose in this era were at *Bordeaux* (1441), *Valence* (1452), *Nantes* (1463) and *Bourges* (1465). New European universities were also founded at *Trier* (1450), *Freiburg* (1455), *Ingolstadt* (1459), *Basel* (1460), *Budapest* (1475), *Mainz* (1476), *Uppsala* (1477), *Tübingen* (1477), *Copenhagen* (1479), *Wittenberg* (1502), *Frankfurt on Oder* (1506) and *Coimbra* (1537).

St. Andrews, founded in 1411, was the first university in Scotland. Others were the *University of Glasgow* (1453), the *University of Aberdeen* (1494) and the *College of Edinburgh* (1582). In Ireland, *Trinity College* was founded in Dublin in 1591.

Reformation and Post-Reformation

Until the Reformation, most of the institutions of higher learning in Europe were under the tutelage of the Catholic Church. After 1520, however, many established universities declared their independence of the Church. Cromwell's rule brought about new scholastic methods at both Oxford and Cambridge and the establishment of new colleges thoroughly imbued with Protestantism.

But the first Protestant university was that of *Marburg,* Germany, founded in 1527. Other Protestant universities were: *Königsberg* (1544); *Jena* (1558); *Helmstedt* (1575); *Altdorf* (1575); *Giessen* (1607); *Strasbourg* (1621) and *Halle* (1693).

18th, 19th and 20th Centuries

Among the more famous institutions in this era was Göttingen (1736), whose school of history became celebrated throughout Europe. Others were: *Erlangen* (1743); *Berlin* (1809); *Lemberg* (Lwów) (1816); *Bonn* (1818); *Helsingfors* (1826); the *National University* at Athens (1837); *Bucharest* (1864); *Tokyo* (1868); *Sofia* (1888); *Kyoto* (1897), and *Constantinople* (or Stamboul) (1900).

Among the more famous British universities established in the 19th and 20th centuries were the *University of London* (1825); *Manchester* (1851); *Liverpool* (1881); the *Mason University College* in Birmingham (1900); *Leeds* (1904), and the *University College* in Sheffield (1905). The *University of Wales* is composed of colleges in Aberystwyth, Bangor, Cardiff and Swansea.

There are many important and large universities in the British dominions. In Canada, the famous *McGill University* in Montreal was founded in 1821. Others are the *University of Toronto* (1827); *Queens University* at Kingston, Ont. (1841); *Laval University,* Quebec (1852); *Dalhousie,* Halifax (1818), and *Montreal University* (1876).

The early universities in India were patterned after London University rather than on the Oxford-Cambridge style, and were purely examining institutions. *Calcutta* and *Madras* universities were founded in 1857 as examining schools.

In Australia, the state plays an important role in the development of universities. The *University of Melbourne* (1853) has the largest enrollment. Among the others are *Adelaide* (1874); *Tasmania* (1890); *Queensland* (1909); *Sydney* (1850), and *West Australia* (1913).

There are also many well-endowed universities in New Zealand, South Africa, and other parts of the Commonwealth.

In 1755, Russia had only three universities—*Vilna* (1578), *Dorpat* (1632) and *Moscow* (1755). Other institutions developed later were the *University of Kharkov* (1804); *Kazan* (1804); *St. Petersburg* (1819); *St. Vladimir* in Kiev (1832); *Odessa* (1865); *Warsaw,* which is now Polish (1886) and *Tomsk,* in Siberia (1888). The building of universities after the Revolution of 1917 was spurred by the Soviet government.

In China, the growth of universities was hampered by the chaotic state of the government in the 1900's, the recurring civil wars and the conflict with Japan.

The United States

Universities in the United States marched in step with the progress of the nation. The early settlers brought a heritage of European culture which they planted in New England soil. The first university in the country was started as *Harvard College* in 1636, with an endowment totaling 800 pounds. Harvard was to become probably the most famous of the American universities, with an endowment in 1951 of more than $195,000,000, a faculty of 2,600 members and a student enrollment of approximately 11,000.

The *College of William and Mary* (1693) was the second institution of higher learning established in the colonies. Others started during the colonial period (current names only) are: *Yale* (1701); *University of Pennsylvania* (1740); *Princeton* (1746); *Washington and Lee* (1749); *Columbia* (1754); *Brown* (1764); *Rutgers* (1766) and *Dartmouth* (1769).

After the Revolution of 1776, the state tax-supported university was established. The *University of Virginia* (1819) was a notable early example of this type.

Colleges for women grew up in the second quarter of the 19th century. Among these are: *Mt. Holyoke* (1837); *Elmira* (1855); *Vassar* (1861); *Wells* (1868); *Hunter* (1870); *Wellesley* (1870); *Smith* (1871) and *Bryn Mawr* (1880).

In the latter part of the 19th century, universities established by private endowments arose. Typical of these are: *Cornell* (1865), which is also a land-grant institution; *Johns Hopkins* (1876); *Stanford* (1885) and the *University of Chicago* (1891).

Libraries of the World

Europe and Asia

Among the great libraries of the world, the *British Museum* remains in the first rank with more than 5,000,000 printed volumes and manuscripts. It contains such outstanding treasures as the *Codex Alexandrinus* and the *Codex Sinaiticus* of the Bible, the best collection of Greek papyri from Egypt, and vast collections of original historical manuscripts of incalculable value. Some 150,000 volumes were destroyed in air raids during World War II, but many were replaced later.

One of the finest libraries in the world is the *Bibliothèque Nationale* in Paris, which has approximately 5,000,000 volumes, 130,000 manuscripts, 400,000 medals and coins, and 4,000,000 prints and engravings.

The *State Library* in Berlin, founded in 1659–61, was combined in 1947 with the library of the Technische Hochschule to form a new institution known as the *Oeffentliche Wissenschaftliche Bibliothek*. Prior to World War II, the State Library had 2,850,000 volumes; the new combined library has only 1,500,000. The *State Library* at Munich also suffered extensive war losses, with some 500,000 volumes destroyed; it now contains about 2,000,000. The *Deutsche Bücheri* at Leipzig had recovered most of its losses by 1950 and has more than 2,000,000 volumes. Estimates have placed the war losses of all German libraries at between 20 and 25 million volumes.

The *Nationalbibliothek* in Vienna has about 1,350,000 volumes and a large collection of papyri.

While not as large as some of the European state libraries, the *Biblioteca Apostolica Vaticana* in Rome has many priceless old manuscripts bequeathed to the Vatican over the centuries. The printed books number about 700,000, the incunabula about 6,000 and the manuscripts about 50,000.

Three of the more important Italian libraries are the *Biblioteca Nazionale* in Naples, with about 1,250,000 volumes and 11,000 manuscripts; the *Biblioteca Nazionale Centrale* in Florence, with 3,400,000 volumes, manuscripts and pamphlets, and the *Biblioteca Nazionale Centrale* in Rome, with approximately 1,940,000 volumes.

Other large European libraries are the *Bibliothèque Royale* in Brussels (2,000,000 volumes), the *Biblioteca Nacional* in Madrid (1,500,000), the *University Library* at Amsterdam (more than 1,500,000) and the *Royal Library* in Stockholm (650,000). The *Lenin State Library* in Moscow is said to contain 11,000,000 volumes—largest single collection in the world—besides many collections of valuable historical documents. In Leningrad, the *Gosudarstvennaya Public Library* claims 6,000,000 volumes and the *Libraries of the Academy of Sciences* some 11,000,000.

In the Far East, the most extensive libraries are found in Japan, although war damage in 1944–45 was severe. In Tokyo, the *Imperial University Library* has slightly more than 1,000,000 volumes, the *Imperial Cabinet Library* 510,000, and the *Waseda University Library* 400,000. The *Imperial University Library* at Kyoto contains about 1,100,000.

The United States and Canada

The earliest libraries in the Colonial era were privately owned, although in 1731 Benjamin Franklin projected the first subscription library in Philadelphia. Endow-

ments helped to set up many of the large libraries, although many of these institutions are now receiving state or municipal support.

The largest library in the United States is the *Library of Congress*, established in 1800 by Congress. In 1951, it contained 9,400,000 books and pamphlets. It extends services to members of Congress and other government departments, and also offers excellent facilities for persons engaged in scholarly research.

The *New York Public Library*, with more than 5,000,000 volumes, is the largest public library in the United States.

By 1947 there were more than 7,100 public libraries in the United States, and about 4,200 libraries of other kinds. In 1949, libraries in cities of over 100,000 population had 46,300,000 volumes.

The growth of libraries attached to colleges and universities in the United States has been phenomenal, and some of the university libraries are among the largest in the country. Among them are (total volumes in parentheses): Harvard (5,250,000); Yale (3,980,000); University of California, including branches (2,718,000); University of Illinois (2,384,000); Columbia (1,898,000); University of Chicago (1,750,000); University of Minnesota (1,528,000); University of Wisconsin (1,483,000); Cornell (1,464,000); University of Michigan (1,455,000); Stanford (1,222,000); Princeton (1,200,000); and University of Pennsylvania (1,195,000).

In Canada, the most important public library is that of Toronto, which has more than 700,000 volumes. Extensive libraries attached to the universities are at Queens (224,000), McGill (548,000), and Laval (850,000).

Museums of the World

(For U. S. Museums see INDEX.)

The modern museum originated during the Renaissance, when the revival of interest in the arts and classical antiquity led princes, nobles and humanists to amass specimens of historical value and to house their collections in special buildings or galleries.

Art Museums

The British Museum, London, contains some of the most famous historical objects of the world, including the Elgin Marbles and the Rosetta Stone.

Victoria and Albert Museum, London, whose primary object is to furnish examples to illustrate the history of art, emphasizes architecture and sculpture, ceramics, engraving, book production, paintings, textiles, etc. The library is devoted principally to fine and applied arts of all countries.

National Gallery, London, contains a great number of old Masters, including paintings by Da Vinci, Michelangelo, Tintoretto, Mantegna, Titian, Bellini, Jan van Eyck, Rubens, Rembrandt, Holbein, Constable and Turner.

Tate Gallery, London, established as part of the National Gallery, was badly damaged during air raids of World War II, but was completely restored by 1949.

Wallace Collection, London, has many *objets d'art* and curios of French origin, and first-rank canvases and etchings of Italian, Spanish, Flemish, Dutch and English artists.

In France, the most famous gallery is the *Louvre* in Paris, noted for the magnificence of its architecture as well as for its art collection, which is the largest in the world. Other Parisian museums of importance are *Cluny*, *Rodin*, *Guimet*, and *Carnavalet*.

Among the magnificent Italian museums, the *National Museum* at Naples contains one of the best arranged and classified collections. The *Uffizi Gallery* in Florence, founded by the Medicis, has one of the world's largest and best collections of Italian art. Other galleries in Florence are the *Gallery of Modern Art* (*Pitti Palace*) and the *National Museum* (*Bargello*). Rome has numerous museums, including several in the Vatican.

In Berlin, the *Schloss Museum* and *National Gallery* were damaged during World War II.

The *Royal Museum of Fine Arts* in Brussels has a fine collection of French, Flemish and Dutch masters and houses many canvases by Rubens, Van Dyck, Jordaens, Rembrandt, Frans Hals and Jan Steen.

The *State Museum* in Amsterdam contains superb works by Rembrandt, Vermeer and others.

Among the notable art museums in other countries are the world-famous *Museo del Prado* in Madrid; the *Tretyakov State Gallery*, the *Pushkin State Museum of Fine Arts* and the *Hermitage State Museum in Moscow*; and the *National Museum* in Tokyo, famed for its many Oriental paintings and examples of Oriental workmanship in lacquer, jade, ivory and metal.

Science Museums

The *Ashmolean Museum*, oldest in Great Britain, was founded in 1683 by the University of Oxford and houses a collection of archeological rarities.

Science Museum of London has exhibits

of scientific instruments and appliances which review the progress of science and the history of invention. Other London museums of science are the *Natural History (British Museum)*, the *Imperial War Museum* (exhibits of both World Wars) and the *Geological Museum*.

The *Liverpool Museums* contain valuable collections of natural history and antiquities and are divided into departments of zoology, botany, geology, archeology and ethnology. The buildings were almost completely destroyed during World War II, although most of the exhibits were saved.

The *Manchester Museum* serves as both a municipal and a university museum. The *Bristol Museum* contains departments of geology, zoology, botany, archeology and Bristol antiquities. The *National Museum of Wales* at Cardiff has departments of archeology, botany, geology and zoology.

In Edinburgh, Scotland, are the famed *Royal Scottish Museum*, which has collections in art, ethnography, natural history, technology and geology; and the *National Museum of Antiquities of Scotland*, noted for its coin and manuscript collections.

The *National Museum* in Dublin and the *Municipal Museum* in Belfast have important science collections.

Notable institutions of continental Europe include the *Natural History Museum* in Paris, the *Museum of Oceanography* in Monaco, the *Natural History Museum* in Lisbon, the *State Museum of Geology and Mineralogy* in Leyden (Netherlands), the *Museum of Natural History* in Stockholm, the *Natural History Museum* in Vienna, the *Hungarian National Museum* in Budapest, the *National Museum* in Prague, and the various natural science museums in Basel, Berne, Geneva, Lausanne and Neuchâtel, Switzerland. Most larger cities of the U.S.S.R. have science museums of varying sizes, some specializing in local exhibits of natural history.

Famous science museums in Germany prior to World War II included the various sections of the *Staatlichen Museen* in Berlin and the museums of natural history and ethnography in Hamburg.

In Calcutta is the *Indian Museum*, outstanding for its marine fauna and vertebrate fossils, and in Bombay the *Victoria and Albert Museum*.

In Australia are the *Queensland Museum* and the *Botanic Museum* in Brisbane, the *South Australian Museum* in Adelaide, and the *Australian Museum* in Sydney.

New Zealand contains the *Canterbury Museum*, Christchurch, rich in local fauna, flora and geological items, and a Maori and Polynesian ethnological collection. The *Otago Museum* of natural sciences and anthropology at Dunedin, the *Auckland Institute and Museum* in Auckland and the *Dominion Museum* in Wellington are others of note.

In Africa, the *South Africa Museum*, Capetown, holds general and local history collections and others illustrating anthropology, ethnology and archeology. The *Durban Museum* contains much anthropological material. In Cairo are the notable collections of the *Egyptian Museum*.

Other museums of note include the *Archeological Museums* at Istanbul, the *Tokyo Science Museum*, the *National Museum of Natural History* in Santiago (Chile), the *National Museum* at Rio de Janeiro, and the *Argentine National Museum of Natural Sciences* at Buenos Aires.

Zoological Gardens of the World

Far from being a modern idea, the custom of keeping savage beasts in captivity is as ancient as recorded history. In the early part of the 12th century, B.C., the Chinese king Wen had a special zoo where he housed animals captured from all parts of ancient China.

One of the earliest modern zoos, the *Jardin des Plantes* in Paris, was established in 1793. In the following century zoological gardens were established in many of the major cities of the world.

At Giza, outside Cairo, the zoological garden is lodged in a beautiful park maintained by the Egyptian government. Its large collection of animals is chiefly African in origin. Elsewhere in Africa, at Khartoum in the Sudan, at Pretoria (largest on the continent) and at Johannesburg, fine specimens are found in state-supported zoological gardens.

North America has more than 30 major zoos, in the United States, Canada and Mexico. The *Quebec Zoological Society's* collection is made up of Canadian species; Toronto has also many exotic species.

The first zoological garden in the United States was established in Philadelphia in 1874. Since that time nearly every large city in the country has acquired a zoo. Among the largest are the celebrated *Bronx Zoo* and the *Central Park Zoo* in New York, the *Lincoln Park Zoo* and the *Brookfield Zoo* in Chicago, and those in St. Louis, Cincinnati, Detroit, Kansas City and San Diego. The *National Zoological Park* in Washington, D. C., in a beautiful setting of hills, woods and streams, was established in 1890 by an act of Congress. Some of the U. S. zoos exhibit their collections in open-air, barless pits; the Brookfield Zoo is an example.

Extensive collections in South America are found at Buenos Aires, and at Concepción and Santiago in Chile. At Belém, Brazil, a zoological-botanical garden is noteworthy for its specimens of Amazonian birds and animals.

In Asia, important collections were established by the governments and by native princes. Largest in India is the zoo at Alipore, Calcutta; other excellent zoos are located at Bombay, Karachi and on private estates. Singapore, Batavia and Surabaya have important collections. Others are found at Fort de Kock on Sumatra's west coast; and at Johore Bahru in Malaya. Japan abounds in large and small zoos and privately owned aviaries, located in Tokyo, Nagoya, Kyoto, Osaka and Kobe; many of these were severely damaged during World War II.

Sydney, Melbourne, Adelaide and Perth have large zoological gardens; smaller zoos in Australia are found at Brisbane and Wellington. The Auckland, New Zealand, collection has a representative group of native fauna.

In Europe, zoological gardens have long been popular public institutions. The *Jardin d'Acclimatation,* in the Bois de Boulogne, Paris, was established in 1858, and a model zoo at Vincennes was added in 1937 for the Paris Exposition.

Germany had about 20 zoological gardens, many of which were developed in the peacetime years between World Wars I and II. Large zoos were located in Berlin and Frankfurt on Main. In Munich, the animals were grouped according to the continent of their origin. Others were established at Dresden, Leipzig and Cologne. At Stellingen, the *Hagenbeck Garden* became an outstanding show place and distributing center for animals. Smaller collections were established at Düsseldorf, Elberfeld and Hanover. Several German zoos, notably that at Berlin, were destroyed during World War II.

The *Schönbrunn* at Vienna is one of the oldest zoos in Europe. The Budapest zoological gardens house a fine collection of European birds. At Antwerp, the *Royal Zoological Society* founded a large menagerie in 1843. It was seriously damaged by German bombs during World War II.

In the British Isles, the outstanding collection is in the garden of the *London Zoological Society* in Regent's Park. Although this zoo received a number of direct bomb hits in 1940–41 and again in 1944, it remained open throughout World War II; visitors during this period numbered 6,500,000. Manchester and Clifton have smaller gardens, and the one at Edinburgh is famous for its collection of penguins. The *Dublin Zoo* is noted for its lions, many of which were born there.

The Amsterdam zoo, with its East Indian collection and its aquarium, and the Rotterdam gardens are the two best known in the Netherlands. Built on a high elevation, the *Skansen Zoo* in Stockholm exhibits its north European specimens. The most important gardens in the U.S.S.R. are found in Moscow, where northern as well as exotic species are collected. The zoo at Rome has part of its collection confined in barless pits. At Lisbon there is a small zoological garden, and in Madrid a part of the original royal menagerie.

Famous Structures

(*See also* Seven Wonders of the World.)

Ancient

The Great Sphinx of Egypt, one of the wonders of ancient Egyptian architecture, adjoins the pyramids of Giza and has a length of 189 ft. It was built in the 4th dynasty and was used as a temple.

Other Egyptian buildings of note include the *Temples of Karnak* and *Edfu* and the *Tombs at Beni Hassan.*

The Parthenon of Greece, built on the Acropolis in Athens, was the chief temple to the goddess Athena. It was believed to have been completed by 438 B.C. The present temple remained intact until the 5th century A.D. Today, though the Parthenon is in ruins, its majestic proportions are still discernible.

Other great structures of ancient Greece were the *Temples at Paestum* (about 540 and 420 B.C.); the *Temple of Poseidon* (about 460 B.C.); the *Temple of Apollo* at Corinth (about 540 B.C.); the *Temple of Apollo* at Bassae (about 450–420 B.C.); the famous *Erechtheum* atop the Acropolis (about 421–405 B.C.); the *Temple of Athena Nikė* at Athens (about 426 B.C.); the *Olympieum* at Athens (174 B.C.–A.D. 131); the *Athenian Treasury* at Delphi (about 515 B.C.); the *Propylaea* of the Acropolis at Athens (437–432 B.C.); the *Theater of Dionysus* at Athens (about 350–325 B.C.); the *"House of Cleopatra"* at Delos (138 B.C.) and the *Theater* at Epidaurus (about 325 B.C.).

The Colosseum (Flavian Amphitheater) of Rome, the largest and most famous of the Roman amphitheaters, was opened for use A.D. 80. Elliptical in shape, it consisted of three stories and an upper gallery, rebuilt in stone in its present form in the third century A.D. Its seats rise in tiers, which in turn are buttressed by concrete vaults and stone piers. It could seat between 40,000 and 50,000 spectators. The Colosseum was principally used for gladiatorial combat.

The Pantheon at Rome, begun by Agrippa in 27 B.C. as a temple, was rebuilt in its present circular form by Hadrian (A.D. 110–25). Literally the Pantheon was intended as a temple of "all the gods." It is remarkable for its perfect preservation today, and it has served continuously for 20 centuries as a place of worship.

Famous Roman arches includes the *Arch of Constantine* (about A.D. 315) and the *Arch of Titus* (about A.D. 80).

Later European

St. Mark's Cathedral in Venice (1063–67), one of the great examples of Byzantine architecture, was begun in the 9th century. Partly destroyed by fire in 976, it was later rebuilt as a Byzantine edifice.

Other famous Byzantine examples of architecture are *St. Sophia* in Constantinople (A.D. 532–37); *San Vitale* in Ravenna (542); *St. Paul's Outside the Walls*, Rome (5th century); the *Kremlin* baptism and marriage church, Moscow (begun in 1397); and *St. Lorenzo Outside the Walls*, Rome, begun in 588.

The Cathedral Group at Pisa (1067–1173), one of the most celebrated groups of structures built in Romanesque style, consists of the cathedral, the cathedral's baptistery, and the *Leaning Tower*. This trio forms a group by itself in the northwest corner of the city. The cathedral and baptistery are built in black and white marble. The campanile (Leaning Tower) is 179 ft. high and leans more than 16 feet out of the perpendicular. There is little reason to believe that the architects intended to have the tower lean.

Other examples of Romanesque architecture include the *Vézelay Abbey* in France (1130); the *Church of Notre-Dame-du-Port* at Clermont-Ferrand in France (1100); the *Church of San Zeno* (begun in 1138) at Verona, and *Durham Cathedral* in England.

The Alhambra (1248–1354), located in Granada, Spain, is universally esteemed as one of the great masterpieces of Mohammedan architecture. Designed as a palace and fortress for the Moorish monarchs of Granada, it is surrounded by a heavily fortified wall more than a mile in perimeter. The location of the Alhambra in the Sierra Nevada provides a magnificent setting for this jewel of Moorish Spain.

Notre-Dame de Paris (begun in 1163), one of the great examples of Gothic architecture, is a twin-towered church with a steeple over the crossing and immense flying buttresses supporting the masonry at the rear of the church.

Other famed Gothic structures are *Westminster Abbey*, London (begun 1245; damaged in World War II); *Chartres Cathedral* (12th century); *Sainte Chapelle*, Paris (1243–48); *Laon Cathedral*, France (1160–1205); *Rheims Cathedral* (about 1210–50; rebuilt after its almost complete destruction in World War I); *Rouen Cathedral* (13th–16th centuries); *Amiens Cathedral* (1218–69); *Beauvais Cathedral* (begun 1247); *Salisbury Cathedral* (1220–60); *York Minster* or the *Cathedral of St. Peter* (begun in the 7th century); *Milan Cathedral* (begun 1386); and *Cologne Cathedral* (13th–19th centuries; badly damaged in World War II).

The Duomo (cathedral) in Florence was founded in 1298, completed by Brunelleschi and consecrated in 1436. The oval-shaped dome dominates the entire structure.

Other examples of Renaissance architecture are the *Palazzo Vecchio*, the *Palazzo Pitti* and the *Palazzo Strozzi* in Florence; *St. Peter's* in Rome (begun in 1506 and consecrated in 1626); the *Farnese Palace* in Rome; *Palazzo Grimani* (completed about 1550) in Venice; the *Escorial* (1563–93) near Madrid; the *Town Hall* of Seville (1527–32); the *Louvre*, Paris; the *Château* at Blois, France; *St. Paul's Cathedral*, London (1675–1710; badly damaged in World War II); the *Ecole Militaire*, Paris (1752); the *Pazzi Chapel*, Florence, designed by Brunelleschi (1429); the Palaces of *Versailles* and of *Fontainebleau* and the *Château de Chambord* in France.

Outstanding European buildings of the 18th and 19th centuries are the *Superga* at Turin, the *Hôtel-Dieu* in Lyon, the *Belvedere Palace* at Vienna, the *Royal Palace* of Stockholm, the *Opera House* of Paris (1863–75); the *Bank of England*, the *British Museum*, the *University of London* and the *Houses of Parliament*, all in London; the *Panthéon*, the *Church of the Madeleine*, the *Bourse* and the *Palais de Justice* in Paris.

Asiatic

The Taj Mahal (1632–50), at Agra, India, built by Shah Jahan as a tomb for his wife, is considered by some as the most perfect example of the Mogul style and by others as the most beautiful building in the world. Four slim white minarets flank the building, which is topped by a white dome; the entire structure is of marble.

Other examples of Indian architecture are the temples at Benares and Tanjore.

Famed Mohammedan edifices are the *Dome of the Rock* or *Mosque of Omar*, Jerusalem (A.D. 691); the *Citadel* (1166), and the *Tombs of the Mamelukes* (15th century), in Cairo; the *Tomb of Humayun* in Delhi; the *Blue Mosque* (1468) at Tabriz and the *Tamerlane Mausoleum* at Samarkand.

Angkor Vat, outside the city of Angkor Thom, Cambodia, is one of the most beautiful examples of Cambodian or Khmer architecture. The sanctuary was built during the 12th century. Its temple court is protected by a broad moat.

Great Wall of China (228 B.C.?), designed specifically as a defense against nomadic tribes, has numerous large watch towers which could be called buildings. It was erected by Emperor Ch'in Shih Huang Ti and is 1,400 miles long. Built mainly of earth and stone, it varies in height between 18 and 30 feet.

Typical of Chinese architecture are the pagodas or temple towers. Among some of the better known pagodas are the *Great Pagoda of the Wild Geese* at Sian (founded in 652); *Nan t'a* (11th century) at Fang Shan; the *Pagoda of Sung Yueh Ssu* (A.D. 523) at Sung Shan, Honan.

Other well-known Chinese buildings are the *Drum Tower* (1273), the *Three Great Halls* in the Purple Forbidden City (1627), *Buddha's Perfume Tower* (19th century), the *Porcelain Pagoda* and the *Summer Palace*, all at Peiping.

United States

Rockefeller Center, New York City, completed in 1940, is a remarkable group of examples of American skyscraper architecture. It is dominated by the 70-story R. C. A. building in the center.

Empire State Building, New York City, the loftiest building in the world, has 102 stories and is 1,250 feet high.

Other famous examples of modern buildings in the United States are the *Chrysler Building* and the *United Nations Building* in New York; the *Merchandise Mart*, the *Board of Trade Building* and *Civic Opera Building* in Chicago; and the *Pentagon* in Washington.

Great Dams of the World

Reservoir capacity, thousands of acre feet	Name	Location	Maximum height, feet	Date completed
31,142	Hoover	Colorado River, Ariz.-Nev.	726	1936
24,500	Garrison	Missouri River, N. Dak.	210	*
19,600	Oahe	Missouri River, S. Dak.	230	*
19,412	Fort Peck	Missouri River, Mont.	250	1940
9,517	Grand Coulee	Columbia River, Wash.	550	1942
6,200	Fort Randall	Missouri River, S. Dak.	150	*
6,100	Kentucky	Tennessee River, Ky.	160	1944
6,089	Wolf Creek	Cumberland River, Ky.	242	*
5,825	Denison	Red River, Okla.-Tex.	165	1944
4,500	Shasta	Sacramento River, Calif.	602	1945
4,407	Gatun	Chagres River, Panama Canal Zone	115	1912
4,060	Aswan	Nile River, Egypt	174	1934
3,500	Hungry Horse	Flathead, S. Fk., Mont.	520	*
3,263	Lázaro Cárdenas (El Palmito)	Nazas River, Mex.	295	1948
3,000	Salt Springs	North Fork, Mokelumne River, Calif.	345	1931
2,567	Norris	Clinch River, Tenn.	265	1936
2,432	Alvaro Obregón (Oviachic)	Yaqui River, Sonora, Mex.	187	*
2,300	Saluda	Saluda River, S. C.	208	1930
2,219	Elephant Butte	Rio Grande, N. Mex.	301	1916
2,150	Mettur	Cauvery River, India	214	1934
2,092	Center Hill	Caney Fork River, Tenn.	240	1950
2,000	Hume	Murray River, Australia	180	1936
2,000	Kingsley	North Platte River, Nebr.	162	1941
1,997	Osage (Bagnell)	Osage River, Mo.	148	1931
1,983	Norfolk	North Fork River, Ark.	230	1944
1,980	Chelsea	Gatineau River, Canada	100	1927
1,975	Pensacola	Grand River, Okla.	152	1940
1,934	Marshall Ford (Mansfield)	Colorado River, Tex.	270	1941
1,820	Davis	Colorado River, Ariz.-Nev.	200	1949
1,706	Dale Hollow	Obey River, Tenn.-Ky.	183	1943
1,704	American Falls	Snake River, Idaho-Wyo.	92	1927
1,702	El Azucar	San Juan River, Mexico	142	1943
1,565	Cherokee	Holston River, Tenn.	212	1942
1,560	Sardis	Little Tallahatchie River, Miss.	117	1940
1,540	Douglas	French Broad River, Tenn.	160	1943
1,450	Fontana	Little Tennessee River, N. C.	470	1944
1,400	Roosevelt	Salt River, Ariz.	280	1911

* Under construction in 1951.

Area and Population by Country

Country	Area, sq. mi.	Population	Year[1]
Afghanistan	270,000	12,000,000	1949E
Albania	10,629	1,186,000	1949E
Argentina	1,079,965	17,097,889	1950E
Australia	2,974,581	8,185,539	1950E
Austria	32,388	7,090,122	1949E
Belgium	11,783	8,653,653	1950E
Bhutan	18,000	300,000	....E
Bolivia	416,040	3,990,000	1949E
Brazil	3,291,416	52,645,479	1950C[2]
Bulgaria	42,741	7,160,000	1949E
Burma	261,749	18,304,000	1949E
Cambodia	53,668	3,279,000	1949E
Canada	3,619,616	13,845,000	1950E
Ceylon	25,332	7,550,000	1950E
Chile	286,323	5,862,000	1950E
China[3]	3,858,900	475,000,000	1950E
Colombia	439,714	11,259,730	1950E
Costa Rica	19,238	795,044	1950C
Cuba	44,217	5,415,000	1950E
Czechoslovakia	49,330	12,519,000	1949E
Denmark	16,575	4,286,900	1951E
Dominican Republic	19,327	2,121,083	1950C[2]
Ecuador	104,510	3,077,000	1950C[2]
Egypt	383,000	20,045,000	1949E
El Salvador	13,176	1,889,946	1950C
Estonia[4]	18,357	1,126,415	1940E
Ethiopia	350,000	8,000,000	1948E
Finland	130,160	4,028,910	1950C[2]
France	212,741	42,000,000	1950E
Germany:			
Democratic Rep.	41,700	17,313,700	1946C
Federal Rep.	94,634	47,585,872	1950C[2]
Greece[5]	51,182	7,960,000	1950E
Guatemala	45,452	2,787,000	1950C
Haiti	10,748	3,111,000	1950C
Honduras	59,145	1,533,625	1950C
Hungary	35,893	9,201,158	1948C[2]
Iceland	39,709	144,500	1950E
India	1,220,099[6]	356,891,624[7]	1951C[2]
Indonesia	583,479	79,260,000	1949E
Iran	634,413	18,387,000	1949E
Iraq	116,600	4,794,449	1947C
Ireland	26,601	2,958,878	1950C[2]
Israel	7,800	1,247,000	1950E
Italy	116,235	46,452,000	1951E
Japan	146,690	83,199,637	1950C
Jordan	39,460	1,400,000	1951E
Korea	85,225	29,238,641	1949E
Laos	91,428	1,208,000	1949E
Latvia[4]	25,395	1,994,506	1940E
Lebanon	3,475	1,267,574	1950E
Liberia	43,000	1,600,000	1949E
Liechtenstein	65	13,000	1948E
Lithuania[4]	22,958	2,879,070	1940E
Luxemburg	999	298,578	1950E
Mexico	758,061	25,367,802	1950C[2]
Monaco	.59	21,000	1948E
Mongolian People's Rep.	580,158	900,000	1941E
Nepal	54,000	7,000,000	1948E
Netherlands	12,504	10,200,280	1951E
New Zealand	103,416	1,940,738	1950E
Nicaragua	57,143	1,503,189	1950C[2]
Norway	125,193	3,281,000	1950E
Pakistan	337,524	75,687,000	1951C[2]
Panamá	28,575	801,982	1950C[2]
Paraguay	154,165	1,406,000	1950C[2]
Peru	482,133	8,406,000	1950E
Philippines	114,400	19,557,000	1950E
Poland	119,703	24,976,926	1950C
Portugal	35,413	8,618,000	1950E
Rumania	91,934	15,872,624	1948C
San Marino	38	12,780	1950E
Saudi Arabia	597,000	6,000,000	1949E
Spain	194,945	28,286,518	1950C[2]
Sweden	173,341	7,017,000	1950E
Switzerland	15,940	4,714,992	1950C
Syria	73,587	3,252,664	1950E
Thailand	198,247	18,836,000	1951E
Tibet	469,294	3,000,000	1948E
Turkey	296,185	20,902,628	1950C[2]
Un. of So. Africa	472,550	12,320,000	1950E
U.S.S.R.	8,473,444	192,900,000	1945E
United Kingdom	93,371	50,210,472	1951C[2]
United States	2,977,128	150,697,361	1950C
Uruguay	72,172	2,650,000	1949E
Vatican City	103.7[8]	800	1948E
Venezuela	352,143	4,986,000	1950C
Viêt-Nam	127,259	22,973,000	1949E
Yemen	31,000	1,600,000	1949E
Yugoslavia	99,044	16,250,000	1950E

[1] E—Estimated; C—Census. [2] Preliminary figure. [3] Including Formosa, Manchuria, Tibet; excluding Outer Mongolia. [4] Actually Russian S.S.R., but still recognized by U. S. as independent country. [5] Including Dodecanese. [6] Including Kashmir. [7] Excluding Kashmir. [8] Acres.

National Holidays of American Countries

Source: U. S. Department of State.

Argentina: Independence Day, July 9.
Bolivia: Independence Day, Aug. 6.
Brazil: Independence Day, Sept. 7.
Canada: Dominion Day, July 1.
Chile: Independence Day, Sept. 18.
Colombia: Independence Day, July 20.
Costa Rica: Independence Day, Sept. 15.
Cuba: Independence Day, May 20.
Dominican Republic: Independence Day, Feb. 27.
Ecuador: Independence Day, Aug. 10.
El Salvador: Independence Day, Sept. 15.
Guatemala: Independence Day, Sept. 15.
Haiti: Independence Day, Jan. 1.
Honduras: Independence Day, Sept. 15.
Mexico: Independence Day, Sept. 16.
Nicaragua: Independence Day, Sept. 15.
Panamá: Independence Day, Nov. 3.
Paraguay: Independence Day, May 14.
Peru: Independence Day, July 28.
Uruguay: Independence Day, Aug. 25.
Venezuela: Independence Day, July 5.

Largest Cities of the World

(Exact rating of the cities of the world according to size is impossible because of the diversity of the years for which census or estimated population figures have been issued. Therefore, the rating shown in this table must be considered only approximate.)

City and country	Population	Year*	City and country	Population	Year*
1. London (Greater), England	8,346,000	1951C†	11. Paris, France	2,800,000	1948E
2. New York, N. Y., U. S. A.	7,891,957	1950C	12. Calcutta, India	2,549,790	1951C†
3. Tokyo, Japan	5,385,071	1950C	13. Mexico City, Mexico	2,527,328	1950C†
4. Shanghai, China	4,630,385	1948E	14. Rio de Janeiro, Brazil	2,413,152	1950C
5. Moscow, U.S.S.R.	4,137,018	1939C	15. São Paulo, Brazil	2,227,512	1950C†
6. Berlin, Germany	3,729,300	1949E	16. Cairo, Egypt	2,100,506	1947C
7. Chicago, Ill., U. S. A.	3,606,436	1950C†	17. Philadelphia, Pa., U.S.A.	2,064,794	1950C†
8. Leningrad, U.S.S.R.	3,191,304	1939C	18. Los Angeles, Calif., U.S.A.	1,957,692	1950C†
9. Buenos Aires, Argentina	3,000,371	1947C	19. Detroit, Mich., U.S.A.	1,838,517	1950C†
10. Bombay, India	2,840,011	1951C†	20. Tientsin, China	1,772,840	1948E

Other Large Foreign Cities (over 500,000)

City and country	Population	Year*	City and country	Population	Year*
Ahmedabad, India	788,310	1951C†	Leeds, England	505,000	1951C†
Alexandria, Egypt	925,081	1947C	Leipzig, East Germany	608,111	1946C
Amsterdam, Netherlands	845,266	1951E	Liége, Belgium	573,176	1948E
Antwerp, Belgium	794,280	1948E	Lima, Peru	800,460	1949E
Baghdad, Iraq	832,927	1946E	Lisbon, Portugal	796,227	1948E
Baku, U.S.S.R.	809,347	1939C	Liverpool, England	790,000	1951C†
Bangalore, India	726,170	1951C†	Lódz, Poland	576,000	1948E
Bangkok, Thailand	827,290	1947C	Madras, India	1,429,985	1951C†
Barcelona, Spain	1,205,509	1950C†	Madrid, Spain	1,609,524	1950C†
Birmingham, England	1,112,000	1951C†	Manchester, England	703,000	1951C†
Bogotá, Colombia	543,590	1950E	Manila, Philippines	983,906	1948C
Bombay, India	2,840,011	1951C†	Marseille, France	700,000	1948E
Brussels, Belgium	1,296,687	1948E	Melbourne, Australia	1,326,400	1950E
Bucharest, Rumania	1,401,807	1948C	Milan, Italy	1,293,834	1951E
Budapest, Hungary	1,058,288	1948C†	Montevideo, Uruguay	850,000	1948E
Canton, China	1,128,165	1948E	Montreal, Canada	1,420,057	1949E
Casablanca, French Morocco	550,000	1947E	Mukden, Manchuria	1,021,057	1948E
Changchun, Manchuria	c. 500,000	1948E	Munich, West Germany	831,000	1950C†
Changsha, China	606,972	1931E	Nagoya, Japan	853,085	1947E
Chungking, China	985,673	1948E	Nanking, China	1,113,972	1948E
Chieng Mai, Thailand	543,623	1947C	Naples, Italy	1,037,460	1951E
Cologne, Germany	590,000	1950C†	Odessa, U.S.S.R.	604,223	1937E
Copenhagen, Denmark	764,800	1951E	Osaka, Japan	1,559,310	1947E
Dairen, Kwantung	533,696	.....	Palermo, Sicily	503,534	1951E
Delhi, India	914,634	1951C†	Peiping, China	1,721,546	1948E
Dnepropetrovsk, U.S.S.R.	500,662	1939C	Prague, Czechoslovakia	932,024	1948E
Dublin, Ireland	506,635	1946C	Rangoon, Burma	501,219	1942E
Essen, West Germany	695,000	1950C†	Recife, Brazil	534,468	1950C†
Frankfurt am Main, Germany	524,000	1950C†	Rome, Italy	1,678,664	1951E
Genoa, Italy	678,012	1951E	Rostov on Don, U.S.S.R.	510,253	1939C
Glasgow, Scotland	1,090,000	1951C†	Rotterdam, Netherlands	684,658	1951E
Gorki, U.S.S.R.	644,116	1939C	Santiago, Chile	1,200,000	1950E
Hague, The, Netherlands	571,853	1951E	São Paulo, Brazil	2,227,512	1950C†
Hamburg, West Germany	1,605,000	1950C†	Seoul, Korea	1,446,049	1949E
Hangchow, China	506,930	1931E	Sheffield, England	513,000	1951C†
Hankow, China	721,598	1948E	Sian, China	628,499	1948E
Harbin, Manchuria	760,000	1948E	Stockholm, Sweden	745,936	1950E
Havana, Cuba	659,883	1943C	Sydney, Australia	1,549,590	1950E
Hyderabad, India	1,085,074	1951C†	Tashkent, U.S.S.R.	585,005	1939C
Istanbul, Turkey	1,000,092	1950C†	Teheran, Iran	850,000	1948E
Jakarta, Indonesia	1,200,000	1949E	Tiflis, U.S.S.R.	519,175	1939C
Johannesburg, U. of So. Af.	727,743	1946C	Toronto, Canada	673,104	1949E
Kanpur, India	704,536	1951C†	Tsingtao, China	850,308	1948E
Kharkov, U.S.S.R.	833,432	1939C	Turin, Italy	734,658	1951E
Khonkaen, Thailand	590,664	1947C	Valencia, Spain	509,075	1950C†
Kiev, U.S.S.R.	846,293	1939C	Victoria, Hong Kong	767,000	1949E
Kobe, Japan	607,202	1947E	Vienna, Austria	1,750,000	1948E
Kyoto, Japan	999,396	1947E	Warsaw, Poland	586,000	1948E
Lahore, Pakistan	671,659	1941C	Yokohama, Japan	814,268	1947E

* E—Estimated; C—Census. † Preliminary figures.

Notable Modern Bridges

Length of channel span, feet	Name	Location	Type*	Year completed
4,200	GOLDEN GATE	San Francisco	S	1937
3,500	GEORGE WASHINGTON	New York City	S	1931
2,800	TACOMA NARROWS	Tacoma, Wash.	S	1950
2,310	TRANSBAY	San Francisco	S	1936
2,300	BRONX-WHITESTONE	New York City	S	1939
1,850	AMBASSADOR	Detroit, Mich.	S	1929
1,800	QUEBEC	Near Quebec, Canada	C	1917
1,750	DELAWARE RIVER	Philadelphia, Pa.	S	1926
1,700	FORTH	Firth of Forth, Scotland	C	1889
1,652	KILL VAN KULL	Bayonne, N. J.	SA	1931
1,650	SYDNEY HARBOR	Sydney, Australia	SA	1932
1,632	BEAR MOUNTAIN	Peekskill, N. Y.	S	1924
1,600	WILLIAMSBURG	New York City	S	1903
1,595.5	BROOKLYN	New York City	S	1883
1,550	LIONS GATE	Vancouver, Canada	S	1939
1,500	MID-HUDSON	Poughkeepsie, N. Y.	S	1930
1,500	HOWRAH	Calcutta, India	C	1943
1,470	MANHATTAN	New York City	S	1909
1,400	TRANSBAY	Oakland, Calif.	C	1936
1,380	TRIBOROUGH	New York City	S	1936
1,207	ST. JOHNS	Portland, Oreg.	S	1931
1,200	LONGVIEW	Longview, Wash.	C	1930
1,200	MT. HOPE	Near Bristol, R. I.	S	1929
1,182	QUEENSBORO	New York City	C	1909
1,114	FLORIANOPOLIS	Florianopolis, Brazil	S	1926
1,100	CARQUINEZ STRAIT	Near San Francisco	C	1927
1,097	MONTREAL HARBOR	Montreal, Canada	C	1930
1,080	BIRCHENOUGH	Southern Rhodesia	SA	1935
1,080	DEER ISLE	Deer Isle, Me.	S	1939
1,057	CINCINNATI	Cincinnati, Ohio	S	1867
1,050	OTTO BEIT	Southern Rhodesia	S	1939
1,050	COOPER RIVER	Charleston, S. C.	C	1929
1,010	WHEELING	Wheeling, W. Va.	S	1849
977.5	HELL GATE	New York City	SA	1917
964	EAST ST. LOUIS	East St. Louis, Ill.	C	1950
950	RAINBOW	Niagara Falls, N. Y.	SA	1941
949	GRAND MERE	Quebec, Canada	S	1928
930	PEACE RIVER	Alaska Highway	S	1943
924	STORY	Queensland, Australia	C	1940
875	NATCHEZ	Natchez, Miss.	C	1940
871	BLUE WATER	Port Huron, Mich.	C	1938
866	SANDO	Sando, Sweden	CA	1943
845	DUBUQUE	Dubuque, Iowa	CT	1943
800	THOUSAND ISLANDS	Alexandria Bay, N. Y.	S	1938
800	WALDO HANCOCK	Bucksport, Maine	S	1931
800	RIP VAN WINKLE	Catskill, N. Y.	C	1935
800	HENRY HUDSON	New York City	SA	1936
790	HUEY P. LONG	Near New Orleans, La.	C	1935

* C—Cantilever. S—Suspension. SA—Steel Arch. CA—Concrete Arch. CT—Continuous Truss.

America's Tallest Buildings

City	Building	No. of stories	Height, feet
New York	Empire State	102	1,250
New York	Chrysler	77	1,046
New York	60 Wall Tower	66	950
New York	Bk. of Manhattan	71	925
New York	R. C. A.	70	850
New York	Woolworth	60	792
New York	City Bank	54	745
Cleveland	Terminal Tower	52	708
New York	500 Fifth Avenue	60	700
New York	Metropolitan Life	50	700
New York	Chanin	56	680
New York	Lincoln	53	673
New York	Irving Trust	50	654
New York	General Electric	50	641
New York	Waldorf-Astoria	47	625
New York	10 E. 40th St	48	621
New York	New York Life	40	617
New York	Singer	47	612
Chicago	Board of Trade	44	605
New York	U. S. Court House	37	590
Pittsburgh	Gulf	44	582
New York	Municipal	40	580
Cincinnati	Carew Tower	48	574
New York	Continental Bank	48	565
New York	Sherry-Netherland	40	560
New York	N. Y. Central	35	560
Chicago	Pittsfield	39	557
Columbus	Lincoln-LeVeque Tower	46	556
Chicago	Continental	42	555
Detroit	Penobscot	47	551

Great Disasters

Earthquakes and Volcanic Eruptions

A.D. 79 Aug. 24, Italy: eruption of Mt. Vesuvius buried cities of Pompeii and Herculaneum, killing thousands.

1755 Nov. 1, Portugal: one of the most severe of recorded earthquakes leveled Lisbon and was felt as far away as southern France and North Africa; between 10,000 and 20,000 killed in Lisbon alone.

1883 Aug. 26–28, Netherlands Indies: eruption of Krakatoa; violent explosions destroyed two-thirds of island. Sea waves occurred as far away as Cape Horn, and possibly England. Estimated 36,000 dead.

1902 May 8, Martinique, West Indies: Mt. Pelée erupted and wiped out city of St. Pierre; 40,000 dead.

1906 April 18, San Francisco: earthquake accompanied by fire razed more than 4 sq. mi.; more than 500 dead or missing; property damage about 250–300 millions.

1908 Dec. 28, Messina, Sicily: about 85,000 killed and city totally destroyed by one of most disastrous of recorded earthquakes.

1923 Sept. 1, Japan: earthquake destroyed third of Tokyo and most of Yokohama; more than 90,000 killed.

1935 May 31, India: earthquake at Quetta killed an estimated 50,000.

1939 Jan. 24, Chile: earthquake razed some 50,000 sq. mi.; 30,000 killed.

1939 Dec. 27, Northern Turkey: severe quakes destroyed city of Erzingan; about 100,000 casualties.

1948 June 28, Japan: series of earthquakes killed 3,000 in Fukui.

1949 Aug. 5, Ecuador: earthquake killed about 6,000 and razed 50 towns.

1950 Aug. 15, India: second heaviest earthquake on record affected 30,000 sq. mi. in Assam, destroying 100,000 buildings, killing 574.

1950 Sept. 15, Camiguin Island, Philippines: eruption of Mt. Hibok Hibok killed about 85.

1951 Jan. 18–21, Papua Territory, New Guinea: eruption of Mt. Lamington killed more than 3,000.

1951 May 6–7, El Salvador: about 200 died in earthquakes.

Floods, Avalanches and Tidal Waves

WORLD

1228 Holland: 100,000 reputedly drowned by sea flood in Friesland section.

1642 China: rebels besieging Kaifeng destroyed seawall, causing flood that drowned 300,000 inhabitants.

1887 China: hundreds of thousands of lives reputedly lost in Honan province in overflow of Hwang Ho River.

1896 Japan: earthquake and tidal wave at Sanriku killed 27,000.

1939 China: floods in north; casualties estimated at 10,000,000 homeless, starved or drowned.

1946 Alaska-Hawaii: series of tidal waves in Pacific originating off Alaska killed about 150 in Hawaii.

1947 Japan: floods in wake of typhoon killed about 2,000 on Honshu Island.

1947 Pakistan: floodwaters in East Bengal left 1,000,000 homeless.

1948 Turkey: hundreds of persons were drowned when two rivers in southern Turkey burst their dikes.

1948 China: about 1,000 reported dead in floods near Foochow.

1950 Canada: Winnipeg and vicinity flooded by three rivers; more than third of city was evacuated.

1950 China: floods in eastern and southern China left 1,000,000 homeless and killed 500.

1951 Alps: snow avalanches killed more than 200 in Alpine regions of Switzerland, Italy, France and Austria.

1951 Manchuria: floods killed 1,800; 3,000 missing.

UNITED STATES

1889 Pennsylvania: more than 2,000 died in Johnstown flood.

1912 Mississippi Valley: Mississippi River and tributaries overflowed; 200 dead.

1913 Ohio and Indiana: floods of Ohio and Indiana rivers took 730 lives.

1927 Mississippi Valley: floods inundated 20,000 sq. mi.; 700,000 homeless.

1937 Mississippi and Tributary Valleys: floods in the Allegheny, Mississippi, Ohio valleys killed hundreds.

1948 Oregon and Washington: floods of Columbia and Willamette rivers; approximately 50 dead or missing.

1951 Kansas, Missouri, Oklahoma: floods centering in Kansas City area killed more than 40 and caused damage estimated to exceed $750,000,000.

Tornadoes, Typhoons and Hurricanes

WORLD

1864 Oct. 5, India: most of Calcutta denuded by cyclone; 70,000 killed.

1876 Oct. 31, India: cyclone and tidal wave swept 3,000 sq. mi. with Bengal worst hit; 215,000 killed.

1882 June 6, India: cyclone and tidal wave killed 100,000 in Bombay.

1906 China: typhoon at Hong Kong killed about 10,000.

1930 Sept. 3, Santo Domingo (now Ciudad Trujillo): hurricane killed about 2,000 and injured 6,000.

1934 Sept. 21, Japan: hurricane killed more than 4,000 on Honshu.

1935 Oct. 25, Haiti: hurricane, flood killed 2,000 in Jérémie and Jacmel.

1942 Oct. 16, India: cyclone devastated Bengal; about 40,000 lives lost.

1949 Oct. 27, India: cyclone along southeastern coast killed about 1,000.

1949 Oct. 31–Nov. 2, Philippines: 1,000 believed dead following typhoon.

1950 Sept. 3–4, Japan: typhoon centered on Honshu. 200 killed, many missing.

1951 Jan. 2–3(?), Comoro Islands, Africa: 500 reported killed in tornado.

1951 Aug. 17, Caribbean, Gulf of Mexico: hurricane killed 165 on Jamaica Is., 115 near Tampico, Mex.

UNITED STATES

1884 Feb. 18, Southern States: tornadoes took about 700 lives.

1893 Aug. 27, SE. Coast: 900 killed.

1900 Sept. 8, Texas: Galveston hurricane and tidal wave; 5,000 dead.

1925 March 18, Midwest: about 800 killed and 13,000 injured in tornado which hit Ill., Ind., Tenn., Ky., and Mo.

1926 Sept. 18, Florida: east coast hurricane killed 373; 40,000 homeless.

1928 Sept. 12, Florida: hurricane from Windward Islands killed 4,000.

1936 April 2, Mississippi and Georgia: Tupelo, Miss., and Gainesville, Ga., centers of tornadoes which swept the South; 402 killed, 1,853 injured.

1938 Sept. 21, New England: hurricane killed at least 488 in severest recorded storm of northeastern states.

1947 April 9, Texas and Oklahoma: tornado killed approximately 150.

1947 Sept. 17–19, Florida and Gulf Coast: hurricane killed about 100.

Fires and Explosions

WORLD

1666 Sept. 2, England: "Great Fire of London" destroyed 13,200 houses, St. Paul's Church, 86 parish churches, etc. Damage 10 million pounds.

1812 Sept. 14, Russia: fire started by Russians in Moscow after French occupation destroyed 30,800 houses.

1881 Dec. 8, Austria: about 850 died in Ring Theater fire in Vienna.

1917 Dec. 6, Canada: explosion and fire at Halifax when ammunition ship collided with a vessel; 1,500 dead.

1922 Asia Minor: more than three-fifths of Smyrna destroyed by fire following Turkish occupation.

1947 Aug. 15, England: blast in underseas coal mine near Whitehaven, Cumberland, killed 104 miners.

1948 July 28, Germany: explosion in I. G. Farben Ludwigshaven works killed hundreds, injured 6,000.

1949 Sept. 2, China: Fire on Chunking waterfront killed 1,700 and gutted 10,000 buildings.

1950 Sept. 26, England: fire in colliery at Creswell killed 80 coal miners.

1951 May 29, England: 81 killed in coal-mine explosion at Easington.

1951 June 15, Canada: Montreal home for orphans and aged fire; 35 die.

UNITED STATES

1835 Dec. 16, NEW YORK CITY: 530 buildings destroyed by fire.

1871 Oct. 8, CHICAGO: the "Chicago Fire," which started in barn, swept 2,124 acres, burned 17,450 buildings, killed 250 persons, and made 98,500 homeless; 196 million damage.

1872 Nov. 9, BOSTON: fire destroyed 800 buildings; 75 million damage.

1904 Feb. 7, BALTIMORE, MD.: Fire destroyed most of business section; 125 million damage.

1937 March 18, NEW LONDON, TEXAS: explosion destroyed schoolhouse; 413 children and 14 teachers killed.

1942 Nov. 28, BOSTON: Cocoanut Grove night club fire killed about 500.

1944 July 17, PORT CHICAGO, CALIF.: more than 300 killed in explosion of two ammunition ships.

1946 Dec. 7, ATLANTA: Fire in Winecoff Hotel killed 119.

1947 March 25, CENTRALIA, ILL.: explosion in coal mine killed 111 miners.

1947 April 16–18, TEXAS CITY, TEXAS: most of city destroyed, more than 500 dead following *Grandcamp* explosion.

1949 April 5, EFFINGHAM, ILL.: hospital fire killed 66, including 13 babies.

1950 Jan. 7, DAVENPORT, IOWA: fire in hospital killed 41 women, 40 of whom were patients.

1950 May 19, SOUTH AMBOY, N. J.: explosion of ammunition barges killed 31, injured 202.

Shipwrecks (not including military or naval action)

WORLD

1833 May 11, LADY OF THE LAKE: bound from England to Quebec, struck iceberg; 215 perished.

1853 Sept. 29, ANNIE JANE: emigrant vessel off coast of Scotland; 348 died.

1912 March 5, PRINCIPE DE ASTURIAS: Spanish steamer struck rock off Sebastien Pt.; 500 drowned.

1912 April 15, TITANIC: sank after colliding with iceberg; 1,513 died.

1914 May 29, EMPRESS OF IRELAND: sank after collision in St. Lawrence River; 1,024 perished.

1928 Nov. 12, VESTRIS: British steamer sank in gale off Virginia; 110 died.

1931 June 14, French excursion steamer overturned in gale off St. Nazaire; approximately 450 died.

1939 June 1, Submarine THETIS: sank in Liverpool Bay, Eng.; 99 perished.

1942 Oct. 2, QUEEN MARY: rammed and sank a British cruiser; 338 aboard the cruiser died.

1947 Jan. 19, HIMARA: Greek ship struck floating mine near Gulf of Petalia; approximately 400 killed or drowned.

1947 July 17, RAMDAS: coastal steamer sank off Bombay, India; death toll estimated at more than 600.

1948 Dec. 3, KIANGYA: Chinese refugee ship wrecked in explosion; about 1,000 believed dead.

1949 Jan. 27, TAIPING: Chinese liner collided with collier and both sank; at least 600 died.

1949 Sept. 17, NORONIC: Canadian Great Lakes cruise ship burned at Toronto dock; about 130 died.

1950 Jan. 12, TRUCULENT: British submarine sank in Thames estuary after collision with tanker; 64 dead.

1950 June 19, INDIAN ENTERPRISE: British freighter exploded in Red Sea; 72 of British and Pakistani crew lost.

1951 April 16, AFFRAY: British submarine sank in English channel; 75 dead.

1951 July 5, HEIMATLAND: more than 50 children from East Berlin died when excursion boat burned and sank in Spree river.

U. S. AND U. S. LINES

1865 April 27, SULTANA: boiler explosion on Mississippi River steamboat near Memphis; 1,450 killed.

1904 June 15, GENERAL SLOCUM: excursion steamer burned in New York Harbor; 1,021 perished.

1915 July 24, EASTLAND: Great Lakes excursion steamer overturned in Chicago River; 812 died.

1934 Sept. 8, MORRO CASTLE: about 130 killed in fire off Asbury Park, N. J.

1939 May 23, Submarine SQUALUS: sank with 59 men off Hampton Beach, N. H.; 33 of the crew were rescued.

1943 June 6, ammunition ship collided with tanker off Norfolk; 84 died.

1945 April 9, U. S. ship, loaded with aerial bombs, exploded at Bari, Italy; at least 360 killed.

1950 Aug. 25, BENEVOLENCE: U. S. naval hospital ship sank off San Francisco after collision with freighter; 18 dead, 5 missing.

1951 April 20, ESSO GREENSBORO and ESSO SUEZ: 39 believed lost in collision of two tankers in Gulf of Mexico; both ships reached port.

1951 May 24, U. S. NAVY LIBERTY BOAT: 18 seamen reported lost when boat capsized in Newport, R. I., harbor.

Aircraft Accidents

WORLD

1921 Aug. 24, ENGLAND: *ZR-2*, British dirigible, broke in two on trial trip near Hull; 62 died.

1930 Oct. 5, FRANCE: British dirigible, *R-101*, crashed at Beauvais; 47 died.

1935 May 18, U.S.S.R.: stunt flier crashed into giant land plane, the *Maxim Gorky;* 49 killed.

1938 July 24, COLOMBIA: military plane crashed into grandstand during air review at Bogotá, killing 53.

1947 Feb. 15, COLOMBIA: Ávianca airliner crashed near Bogotá; 53 killed.

1948 Aug. 1, ATLANTIC OCEAN: French flying boat with 52 aboard disappeared.

1949 July 12, near BOMBAY, INDIA: crash of Dutch airliner killed 13 U. S. journalists and 32 others.

1949 Oct. 28, AZORES: crash of French airliner killed 48.

1949 Nov. 20, near OSLO, NORWAY: airliner crash killed 34, including 27 children.

1950 March 12, near CARDIFF, WALES: crash of chartered airliner killed 80.

1950 July 28, near PORTO ALLEGRE, BRAZIL: Brazilian airliner crash killed 49.

1950 Nov. 3, FRANCE: Indian airliner crashed on Mont Blanc, killing 48.

1950 Nov. 13, near GRENOBLE, FRANCE: Canadian plane carrying Holy Year pilgrims crashed; 58 dead.

U. S. AND U. S. LINES

1925 Sept. 3, CALDWELL, OHIO: U. S. dirigible *Shenandoah* broke apart, killing 14.

1933 April 4, NEW JERSEY COAST: U. S. dirigible *Akron* crashed into sea; 73 died.

1937 May 6, LAKEHURST, N. J.: German zeppelin *Hindenburg* destroyed by fire at tower mooring; 36 died.

1946 Oct. 3, NEWFOUNDLAND: U. S. transatlantic airliner crashed near Stephenville; all 39 aboard killed.

1947 May 29, NEW YORK CITY: airliner crashed attempting takeoff; 43 died.

1947 May 30, BAINBRIDGE, MD.: all 49 passengers and four crew members killed in crash of airliner.

1947 June 13, near LEESBURG, VA.: Fifty killed in crash of airliner.

1947 Oct. 24, BRYCE CANYON, UTAH: airliner crashed into hillside after catching fire in midair; 52 killed.

1948 June 17, near MOUNT CARMEL, PA.: all 43 persons aboard airliner were killed as it crashed and burned.

1948 Aug. 29, near WINONA, MINN.: all 36 aboard airliner killed when it crashed into bluff.

1949 June 7, near SAN JUAN, PUERTO RICO: crash of converted army transport into ocean killed 53; 28 rescued.

1949 July 12, near LOS ANGELES, CALIF.: nonscheduled airliner hit mountain, killing 35 and injuring 14.

1949 Nov. 1, WASH., D. C.: fighter plane rammed airliner, killing 55.

1949 Nov. 29, DALLAS, TEX.: airliner coming in for landing crashed, killing 28.

1950 Jan. 27, YUKON, CANADA: U. S. Air Force plane disappeared with 44 aboard.

1950 April 21, near TOKYO, JAPAN: crash of U. S. Air Force transport killed 35.

1950 June 5, near BAHAMAS: transport carrying Puerto Rican laborers crashed; 28 dead, 37 survived.

1950 June 24, near ST. JOSEPH, MICH.: airliner disappeared over Lake Michigan, presumably after exploding; 58 dead.

1950 July 23, near MYRTLE BEACH, S. C.: 39 killed in crash of Air Force plane carrying National Guardsmen.

1950 July 27, near TOKYO, JAPAN: U. S. Air Force transport crashed in sea; 26, including several journalists, lost.

1950 Aug. 31, near CAIRO, EGYPT: crash of U. S. airliner killed 55, including 23 Americans.

1950 Dec. 19, near BAGUIO, PHILIPPINES: U. S. Air Force transport disappeared; 37 lost.

1951 March 23, ATLANTIC OCEAN: U. S. Air Force transport with 53 aboard disappeared.

1951 April 25, near KEY WEST, FLA.: Cuban airliner and U. S. Navy plane collided; 43 killed.

1951 June 22, near SANOYE, LIBERIA: 40 aboard U. S. airliner died in crash.

1951 June 30, ROCKY MOUNTAIN NATIONAL PARK, COLO.: airliner crash killed 50.

1951 Aug. 24, near DECOTO, CALIF.: transcontinental airliner crash killed 50.

1951 Sept. 15, FLAGLER, COLO.: plane fell into crowd at air show; 20 dead.

Railroad Accidents

WORLD

1857 March 17, Des Jardines Canal, Canada: train derailed on bridge; about 60 killed.

1864 June 29, near Beloeil, Canada: about 90 killed when train ran through open switch.

1879 Dec. 28, Dundee, Scotland: train blown off Tay bridge; 73 drowned.

1881 June 24, near Cuartla, Mexico: about 200 died when train fell into river.

1882 July 13, near Tcherny, Russia: more than 150 killed in derailment.

1889 June 12, near Armagh, Ireland: about 80 killed in collision.

1891 June 14, near Basel, Switzerland: about 100 killed in collision.

1915 May 22, Gretna, Scotland: two passenger trains and troop train collided; 227 killed.

1938 Dec. 25, near Kishinev, Rumania: about 100 killed in collision.

1939 Dec. 22, near Magdeburg, Germany: more than 125 killed in collision; 99 killed in another wreck near Friedrichshafen.

1940 Jan. 29, Osaka, Japan: 200 killed in collision.

1944 Jan. 10(?), León Province, Spain: several hundred reported killed in tunnel wreck.

1944 March 2, near Salerno, Italy: 521 suffocated when Italian train stalled in tunnel; war censorship withheld news, which was not revealed until 1951.

1949 Oct. 22, near Nowy Dwor, Poland: more than 200 reported killed in derailment of Danzig-Warsaw express.

1950 April 6, near Rio de Janeiro, Brazil: train wrecked when bridge collapsed; 108 killed or missing.

1951 April 24, Yokohama, Japan: fire aboard express train killed 104.

1951 June 8, near Rio de Janeiro, Brazil: train and truck collided; 54 killed.

UNITED STATES

1856 July 17, near Philadelphia, Pa.: train carrying Sunday-school children wrecked; 66 killed.

1876 Dec. 29, Ashtabula, O.: 80 killed when train broke through bridge.

1887 Aug. 10, near Chatsworth, Ill.: about 80 killed in wreck.

1904 Aug. 7, near Eden, Colo.: about 100 killed in wreck.

1910 March 1, Wellington, Wash.: more than 90 killed.

1918 July 9, Nashville, Tenn.: more than 100 killed.

1938 June 19, Miles City, Mont.: train ran through flood-weakened bridge; 47 killed.

1940 July 31, Cuyahoga Falls, O.: collision killed 43.

1943 Sept. 6, Philadelphia, Pa.: train derailed; 79 killed.

1943 Dec. 16, near Rennert, N. C.: 72 killed in derailment and collision.

1944 Dec. 31, near Ogden, Utah: 48 killed in collision.

1946 April 25, Naperville, Ill.: at least 47 killed in collision.

1950 Feb. 17, Rockville Centre, N. Y.: head-on crash of two commuter trains killed 30.

1950 Sept. 11, near West Lafayette, O.: streamliner rammed rear of troop train. 33 National Guardsmen dead.

1950 Nov. 22, Richmond Hill, N. Y.: 79 died when one commuter train crashed into rear of another.

1951 Feb. 6, Woodbridge, N. J.: 85 died when commuter train plunged through temporary overpass.

1951 Aug. 10, near Simmesport, La.: troop train and streamliner collided; 12 killed.

National Accidental-Death Rates

Source: World Health Organization.

Country & (year)	Rate[1]	Country & (year)	Rate[1]
Australia (1948)	51.1[2,3]	Japan (1949)	42.0[5]
Austria (1949)	55.8[2]	Netherlands (1949)	37.6[2]
Belgium (1949)	29.1	Norway (1948)	47.5[2]
Canada (1949)	61.0	Rumania (1946)	52.6[2]
Czechoslovakia (1947)	36.9	Scotland (1948)	43.3[2]
England & Wales (1948)	32.1[2]	South Africa, Union of (1947)	47.7[2,6]
France (1949)	48.1[4]	Spain (1948)	31.7[2]
Hungary (1946)	44.1	Sweden (1947)	40.0[2]
Ireland (1949)	29.9[2]	Switzerland (1949)	51.1
Italy (1949)	27.2[2]	United States (1950)	59.5

[1] Deaths per 100,000 population. [2] Includes legal executions. [3] Excluding full-blooded aboriginals. [4] Includes homicides and legal executions. [5] Japanese nationals only. [6] European population only.

Leading Countries in Various Riches and Resources

Source: Encyclopaedia Britannica.

The designation "nd" means that no data are available. In such cases, the relative rank of the nation is estimated.

Mineral Production

ANTIMONY ORE (thousands of short tons, 1949)

1. Bolivia	11.3[1]
2. Mexico	6.3
3. U. of S. Africa	5.0
4. Yugoslavia	3.1
5. China	2.6[2]
6. Peru	2.0
7. Czechoslovakia	1.7[2]
8. United States	1.6
9. Algeria	1.5
10. French Morocco	0.8

[1] Exports. [2] 1948.

BAUXITE (thousands of short tons, 1949)

1. Surinam	2,339
2. British Guiana	1,964
3. United States	1,284
4. France	843
5. Indonesia	746
6. Hungary	660
7. U.S.S.R.	551
8. Yugoslavia	405
9. Gold Coast	147
10. Italy	115

CHROME ORE (thousands of short tons, 1949)

1. U.S.S.R.	385[1]
2. Turkey	220
3. U. of S. Africa	160
4. So. Rhodesia	131
5. Philippines	100
6. New Caledonia	50
7. Yugoslavia	46
8. Cuba	35[2]
9. India	11[3]
10. Sierra Leone	9.5[4]

[1] Chromite; target for production of chrome ore was 340,000 short tons in 1950. [2] Exports to U. S. [3] 1948. [4] Exports.

COAL (millions of short tons, 1950)

1. United States	555
2. U.S.S.R.	290
3. United Kingdom[1]	242
4. West Germany	122
5. Poland	81[2]
6. France[3]	73
7. Czechoslovakia	50[4]
8. Japan	42
9. India	36
10. Belgium	30

[1] Excluding Northern Ireland. [2] 1949. [3] Including Saar. [4] Incomplete data.

COPPER (thousands of short tons, 1950)

1. United States	939
2. Chile	380
3. No. Rhodesia	330
4. Canada	239
5. U.S.S.R.	220[1]
6. Belgium	151[2]
7. West Germany	147
8. Japan	93
9. Mexico	68
10. Yugoslavia	38[3]

[1] Rough estimate, 1949. [2] Copper, including secondary, smelted from Belgian Congo ore. [3] 1949.

GOLD (thousands of fine oz., refinery production, 1949)

1. U. of S. Africa	11,705
2. U.S.S.R.	7,000
3. Canada	4,104
4. United States	1,922
5. Australia	897
6. Gold Coast	658
7. So. Rhodesia	528
8. Mexico	406
9. Colombia	359
10. Belgian Congo	334

IRON ORE (millions of short tons, 1950)

1. United States	109.7
2. U.S.S.R.	44.0
3. France	33.0
4. Sweden	15.3
5. United Kingdom	14.5
6. West Germany	12.0
7. Luxemburg	4.2
8. Canada	3.6
9. Chile	3.2
10. Algeria	2.8

LEAD (thousands of short tons, smelter, 1950)

1. United States	570[1]
2. Mexico	261[2]
3. Australia	223[3]
4. U.S.S.R.	171[4]
5. Canada	170[3]
6. West Germany	130
7. Belgium	68
8. France	68
9. Italy	41
10. Peru	40[4]

[1] Refined lead smelted from domestic and foreign ore. [2] Lead content of ores mined. [3] Refined lead. [4] 1949.

MANGANESE ORE (thousands of short tons, 1949)

1. U.S.S.R.	1,980[1]
2. U. of S. Africa	721
3. Gold Coast	704[1]
4. India	607
5. French Morocco	257
6. Brazil	150[2]
7. United States	126
8. Japan	102
9. Mexico	60
10. Hungary	44[1]

[1] 1948. [2] Exports.

PETROLEUM, CRUDE (millions of bbl., 1950)

1. United States	1,934
2. Venezuela	560
3. U.S.S.R.	269
4. Iran	240
5. Saudi Arabia	193
6. Kuwait	124
7. Mexico	72
8. Indonesia	50
9. Iraq	47
10. Colombia	34

PIG IRON AND FERRO-ALLOYS (millions of short tons, 1950)

1. United States	65.3[1]
2. U.S.S.R.	23.2[2]
3. United Kingdom	10.8[1]
4. West Germany	10.4
5. France[3]	10.4[1]
6. Belgium	4.1
7. Luxemburg	2.7
8. Japan	2.5
9. Canada	2.5
10. India	1.9

[1] Excluding ferroalloys made in electric furnaces. [2] Pig iron only. [3] Including Saar.

SILVER (millions of fine oz., 1949)

1. Mexico	49.4
2. United States	34.9
3. Canada	16.9
4. Peru	10.6
5. Australia	9.9
6. Bolivia	6.6
7. Belgian Congo	4.6
8. Japan	2.9
9. Czechoslovakia	1.6[1]
10. U.S.S.R.	nd

[1] 1948.

TIN ORE (thousands of short tons, 1950)

1. Malaya	64.3
2. Indonesia	35.9
3. Bolivia	34.8[1]
4. Belgian Congo	16.2
5. Thailand	11.6
6. U.S.S.R.	9.9[2]
7. Nigeria	9.5
8. China	4.7[3]
9. Australia	2.2[2]
10. Burma	2.0[2]

[1] Exports. [2] 1949. [3] Rough estimate, 1949.

URANIUM

No production data are available.[1]

[1] The most important deposits are probably in Belgian Congo and NW. Territories, Canada. Deposits are also found or reported in Argentina, Australia, Bolivia, Brazil, Bulgaria, Burma, Ceylon, Chile, China (Manchuria), Czechoslovakia, England, Finland, France, Germany, Greenland, Hungary, India, Indonesia, Madagascar, Mexico, Mozambique, Norway, Portugal, Sardinia, South Africa, Spain, Sweden, U.S.S.R., and U. S.

ZINC (thousands of short tons, smelter, 1950)

1. United States ..... 846[1]
2. Mexico ..... 243[2]
3. Canada ..... 205[3]
4. Belgium 195
5. U.S.S.R. ..... 187[4]
6. West Germany 135
7. Poland ..... 96[5]
8. Australia ..... 93[6]
9. France 79
10. United Kingdom 79

[1] Slab zinc. [2] Zinc content of ores mined. [3] Refined zinc. [4] 1949. [5] 1948. [6] Year ending June 30, 1950.

Agriculture

BARLEY (thousands of short tons, 1950)

1. U.S.S.R. 7,800
2. China ..... 7,300[1]
3. United States 7,200
4. Canada 4,100
5. India 2,500
6. Turkey 2,220
7. Japan 2,150
8. United Kingdom .. 1,780
9. Denmark 1,770
10. France 1,730

[1] 1949; 22 provinces.

BUTTER (thousands of short tons, factory, 1950)

1. United States 696
2. West Germany 285
3. U.S.S.R. ..... nd
4. Denmark 198
5. France ..... 191[1]
6. New Zealand ..... 189[2]
7. Australia ..... 189[2]
8. East Germany ..... nd
9. Canada 131
10. Sweden 119

[1] 1949. [2] Year ending June 30, 1950.

CATTLE (in millions)

1. India ..... 181.5[1]
2. United States ..... 80.3[1]
3. U.S.S.R. ..... 57.2[1]
4. Brazil ..... 50.2[2]
5. Argentina ..... 41.3[3]
6. Pakistan ..... 24.3[4]
7. China ..... 18.2[5]
8. Ethiopia ..... 15.8[4]
9. France ..... 15.4[6]
10. Mexico ..... 14.5[6]

[1] 1950. [2] 1948–49. [3] 1946–47. [4] 1947–48. [5] 1947–48; 22 provinces. [6] 1949.

CHEESE (thousands of short tons, factory, 1950)

1. United States 585
2. Italy ..... 261[1]
3. France ..... 209[1]
4. U.S.S.R. ..... nd
5. West Germany 150
6. Netherlands ..... 140[2]
7. New Zealand ..... 117[3]
8. Argentina ..... 109[4]
9. East Germany ..... nd
10. Denmark 65

[1] 1948. [2] Incl. from farms. [3] Year ending June 30, 1950. [4] 1949.

COTTON, GINNED (millions of bales, 500 lb. gross, 1950)

1. United States 9,884
2. U.S.S.R. ..... nd
3. India 2,650
4. Egypt 2,000
5. China ..... 1,628[1]
6. Brazil 1,355
7. Mexico 1,040
8. Pakistan ..... 916[1]
9. Turkey ..... 428[1]
10. Argentina ..... 408[1]

[1] 1949.

FORESTS (millions of acres, 1947–48)

1. U.S.S.R. 1,551
2. Brazil 979
3. Canada 826
4. United States ..... 625[1]
5. Fr. West Africa 420
6. Fr. Eq. Africa 377
7. Indonesia 299
8. Belgian Congo ..... 250[1]
9. Anglo-Egy. Sudan .. 233
10. China 207

[1] 1949.

HOGS (number in millions, latest data available)

1. United States ..... 60.4[1]
2. China ..... 59.5[2]
3. U.S.S.R. ..... 24.1[1]
4. Brazil ..... 23.9[3]
5. West Germany ..... 9.7[4]
6. France ..... 6.8[4]
7. Poland ..... 5.8[3]
8. Mexico ..... 5.6[5]
9. Canada ..... 5.4[4]
10. Philippines ..... 4.7[4]

[1] 1950. [2] 1947–48; 22 provinces. [3] 1948–49. [4] 1949–50. [5] 1949.

HORSES (number in millions, latest data available)

1. U.S.S.R. ..... 13.7[1]
2. Argentina ..... 7.2[2]
3. Brazil ..... 6.9[3]
4. United States ..... 5.3[1]
5. Poland ..... 2.5[3]
6. Mexico ..... 2.5[4]
7. France ..... 2.4[5]
8. China ..... 2.0[6]
9. Canada ..... 1.6[5]
10. West Germany ..... 1.6[5]

[1] 1950. [2] 1946–47. [3] 1948–49. [4] 1949. [5] 1949–50. [6] 1947–48.

LAND, ARABLE (millions of ac., including orchards, 1949 or latest data available)

1. U.S.S.R. 556
2. United States 455
3. India 306
4. China[1] 225
5. Belgian Congo ..... 121[2]
6. Canada 85
7. Argentina 74
8. Iran 59
9. France 52
10. Pakistan 52

[1] Excluding Formosa. [2] Including inland water.

MEAT[1] (thousands of short tons, 1950)

1. United States ..... 8,000[2]
2. U.S.S.R. ..... nd
3. France ..... 1,920[3]
4. Argentina ..... 1,380[3]
5. United Kingdom ... 1,280
6. West Germany 1,220
7. Australia ..... 1,170[4]
8. Poland ..... 770[5]
9. Canada ..... 640[2]
10. Denmark ..... 560[6]

[1] Beef, veal, mutton, lamb, pork, goat meat. [2] Inspected slaughtering only. [3] 1949. [4] Incl. from farms, year ending June 30, 1950. [5] Inspected slaughtering only, 1948. [6] Incl. beef and pork from farms.

MILK (millions of U. S. gal., 1950)

1. United States 14,000
2. U.S.S.R. ..... nd
3. West Germany ... 3,600
4. France ..... 3,300[1]
5. United Kingdom .. 2,300[2]
6. East Germany .... nd
7. Canada 1,900
8. Australia ..... 1,500[3]
9. Denmark 1,400
10. Netherlands 1,200

[1] 1949. [2] Milk sold through Milk Marketing Schemes. [3] Year ending June 30, 1950.

OATS (thousands of short tons, 1950)

1. United States 23,700
2. U.S.S.R. ..... 13,100[1]
3. Canada 7,130
4. France 3,540
5. United Kingdom .. 2,920
6. West Germany 2,800
7. Poland 2,200
8. East Germany 1,250
9. Czechoslovakia 1,190
10. Denmark 910

[1] 1947.

POTATOES (thousands of short tons, 1950)

1. U.S.S.R. 85,000
2. Poland 34,100
3. West Germany 28,600
4. France 15,900
5. United States 12,900
6. United Kingdom .. 10,700
7. East Germany .... 9,350[1]
8. Czechoslovakia ... 8,200
9. Netherlands 4,400
10. Spain 3,400

[1] 1949.

RICE (thousands of short tons, 1950)

1. China ..... 55,000[1]
2. India ..... 37,970[2]
3. Pakistan 14,190
4. Japan 12,870
5. Indonesia 10,530
6. Thailand 7,350
7. Indo-China ..... 5,060[2]
8. Burma 4,490
9. South Korea ..... 3,520[2]
10. Brazil ..... 3,280[2]

[1] 22 provinces. [2] 1949.

RUBBER (thousands of short tons, 1950)

1. Malaya	776
2. Indonesia	768
3. United States	532[1]
4. Ceylon	132
5. Thailand	125[2]
6. North Borneo[3]	92
7. Canada	65[1]
8. U.S.S.R.	nd
9. Indo-China	53
10. Liberia	32[4]

[1] Synthetic only. [2] Exports. [3] Including Sarawak and Brunei. [4] Exports, 1949.

SHEEP (number in millions, latest data available)

1. Australia	108.5[1]
2. U.S.S.R.	64.8[2]
3. Argentina	54.8[3]
4. India	39.0[4]
5. New Zealand	32.8[1]
6. U. of S. Africa	32.6[2]
7. United States	30.8[4]
8. Turkey	25.8[1]
9. Uruguay	23.0[1]
10. Spain	22.0[1]

[1] 1949. [2] 1948. [3] 1947–48. [4] 1950.

SUGAR BEETS (thousands of short tons, 1950)

1. U.S.S.R.	26,700
2. United States	13,520
3. France	12,710
4. West Germany	6,750
5. United Kingdom	5,640
6. Poland	5,500[1]
7. Czechoslovakia	4,890[1]
8. East Germany	3,900[1]
9. Italy	3,880
10. Netherlands	2,820

[1] 1949.

WHEAT (millions bu., 1950)

1. U.S.S.R.	1,110
2. United States	1,027
3. China	903[1]
4. Canada	462
5. France	270
6. Italy	255
7. Argentina	230
8. India	209[1]
9. Australia	190
10. Pakistan	150

[1] 1949.

WOOL (thousands of short tons, greasy basis, 1950)

1. Australia	565
2. Argentina	240
3. New Zealand	183
4. U.S.S.R.	135[1]
5. United States	133
6. U. of S. Africa	110
7. Uruguay	78
8. United Kingdom	40[1]
9. China	39[1]
10. Spain	39[1]

[1] 1949.

Industry, Commerce, Communications

AIRLINES (millions of passenger-miles, monthly average, 1950)

1. United States	851
2. United Kingdom	66
3. U.S.S.R.	nd
4. Australia	58[1]
5. France	51[2]
6. Netherlands	40
7. Canada	38[2]
8. Mexico	29[2]
9. India	19
10. Colombia	16

[1] 1948–49. [2] 1949.

ALUMINUM (thousands of short tons, 1949)

1. United States	603.5
2. Canada	366.8
3. U.S.S.R.	154.3[1]
4. France	65.0
5. Norway	38.6
6. United Kingdom	34.0
7. Italy	27.9
8. West Germany	26.5
9. Switzerland	24.3
10. Japan	23.4

[1] 1948.

ELECTRICITY (billions of kwh., 1950)

1. United States	329.0
2. U.S.S.R.	86.7
3. United Kingdom[1]	55.0
4. Canada	50.9
5. West Germany	44.0[2]
6. Japan	38.8
7. France	31.4
8. Italy	20.8
9. Sweden	18.3[2]
10. Norway	17.3[2]

[1] Excluding N. Ireland. [2] Including private generation of electricity.

EMPLOYMENT INDEX (non-agricultural, 1950) (1937 = 100)

1. Canada	168
2. Australia	147[1]
3. United States	144
4. U.S.S.R.	nd
5. U. of S. Africa	137
6. Austria	137[2]
7. France	110
8. Norway	110[3]
9. West Germany	107[4]
10. Luxemburg	107[5]

[1] July, 1939 = 100. [2] Including agriculture. [3] 1941 = 100. [4] June, 1948 = 100. [5] Wage earners only; excluding public transport, services, and part of commerce.

EXPORT INDEX (1950) (1937 = 100)

1. United States	179
2. France	173[1]
3. United Kingdom	162
4. Cuba	143[2]
5. Switzerland	142[1]
6. U.S.S.R.	nd
7. Poland[3]	142
8. Turkey	135
9. Malaya	134[4]
10. Netherlands	132[1]

[1] 1938 = 100. [2] 1949; 1935–39 = 100. [3] Based on pre-World War II territory. [4] 1949; 1938 = 100.

IMPORT INDEX (1950) (1937 = 100)

1. Poland[1]	218
2. Turkey	188
3. Philippines	165
4. Indo-China	162[2]
5. U.S.S.R.	nd
6. Switzerland	147[3]
7. Netherlands	137[3]
8. West Germany	128[4]
9. United States	128
10. Malaya	125[5]

[1] Pre-World War II territory. [2] 1949. [3] 1938 = 100. [4] 1936 = 100.

INDUSTRIAL PRODUCTION INDEX (1950) (1937 = 100)

1. Canada	184
2. United States	177
3. Poland[1]	177
4. Argentina	173[2]
5. U.S.S.R.	165[3]
6. Sweden	163
7. Ireland	155
8. Denmark	152
9. Finland	149
10. Norway	141

[1] Pre-World War II territory. [2] 1949. [3] 1948—first 9 mo.

MERCHANT FLEETS[1] (millions of gross tons, 1950)

1. United States	26.1
2. Brit. Commonwealth	18.9
3. Norway	5.0
4. Panamá	3.4
5. France	2.8
6. Netherlands	2.8
7. Italy	2.4
8. Sweden	1.8
9. U.S.S.R.	1.4
10. Greece	1.3

[1] Ships of 1,000 gross tons or more.

MOTOR VEHICLES (production in thousands, 1950)

1. United States	7,987[1]
2. United Kingdom	790
3. Canada	325[2]
4. France	324
5. West Germany	208
6. U.S.S.R.	nd
7. Italy	86[2]
8. Japan	29[2]
9. Czechoslovakia	25[2]
10. Australia	23[3]

[1] Factory sales. [2] 1949. [3] 1947.

RAILWAYS (millions of freight-tons carried, monthly average, 1950)

1. United States	194.7[1]
2. U.S.S.R.	nd
3. United Kingdom[2]	23.8
4. West Germany	19.4

5. France ..... 12.7[3]
6. Canada 11.9
7. Poland ..... 11.0[4]
8. India ..... 10.0[1]
9. Japan ..... 9.7[3]
10. Belgium ..... 5.1[5]

[1] Class I railways only. [2] Excluding Northern Ireland. [3] State railways only. [4] 1949; state railways only. [5] Carload lots only.

STEEL (thousands of short tons, 1950)

1. United States 96,400
2. U.S.S.R. 30,400
3. United Kingdom .. 18,200
4. West Germany 13,300
5. France[1] 11,600
6. Japan 4,900
7. Belgium 4,100
8. Canada 3,400
9. Czechoslovakia ... 3,200[2]
10. Poland 2,700

[1] Including Saar. [2] 1949.

TELEPHONES (number per 100 population, 1950)

1. United States 27.1
2. Sweden 22.8
3. Canada 19.6
4. New Zealand 18.2
5. Switzerland 18.2
6. Denmark 15.8
7. Iceland 13.9
8. Norway ..... 13.3[1]
9. Australia 13.2
10. United Kingdom 10.2

[1] 1949.

Human Resources

BIRTH RATE, HIGHEST ANNUAL[1] (per 1,000 population, 1950)

1. U.S.S.R. ..... nd
2. Mexico ..... 45.4[2]
3. China ..... nd
4. Japan 28.5
5. Thailand ..... 27.1[2]
6. India ..... 26.8[2]
7. Canada[3] 26.5
8. U. of S. Africa ..... 25.7[4]
9. United States 23.4
10. Australia ..... 22.9[5]

[1] Following smaller countries not included: Guatemala, 49.0; Dominican Republic, 47.7; Costa Rica, 46.9; Venezuela, 43.3 (1949); Ceylon, 39.9 (1949); Puerto Rico, 38.7; Nicaragua, 35.4 (1949); Chile, 33.2 (1949); Panamá, 33.0 (1949); Israel, 29.4 (1949, Jewish population only); Peru, 25.9 (1949); New Zealand, 24.6; Finland, 24.1; Portugal, 23.7. [2] 1949. [3] Excluding Yukon, Northwest Territories and Newfoundland. [4] European population only. [5] 1949; excluding full-blooded aboriginals.

DEATH RATE, LOWEST ANNUAL[1] (per 1,000 population, 1950)

1. Netherlands 7.5
2. Norway 8.9
3. Denmark ..... 8.9[2]
4. Canada[3] 9.0
5. Australia ..... 9.5[4]
6. United States 9.6
7. Italy 9.7
8. Sweden 10.0
9. Switzerland 10.1
10. West Germany 10.3

[1] Following smaller countries not included: Israel, 6.9 (1949, Jewish population only); Panamá, 7.1 (1949); New Zealand, 9.3; Dominican Republic, 9.3; Puerto Rico, 9.9; Nicaragua, 10.1 (1949); Finland, 10.2. [2] 1949. [3] Excluding Yukon, Northwest Territories and Newfoundland. [4] 1949; excluding full-blooded aboriginals.

Military Forces (estimates)

AIR FORCES (planes, 1950)

1. United States 30,000
2. U.S.S.R. 20,000
3. United Kingdom .. 6,000
4. Turkey 1,000
5. France 800
6. Spain ..... nd
7. Poland ..... nd
8. Yugoslavia 600
9. Sweden 600
10. Portugal ..... 575[1]

[1] 1949.

ARMED FORCES (army, air, navy, in thousands, 1951)

1. U.S.S.R. 4,500
2. China ..... 4,000[1]
3. United States ..... 3,250[2]
4. United Kingdom ... 730
5. France 725
6. Yugoslavia 600
7. Turkey 500
8. Poland 500
9. India ..... 450[3]
10. Spain 450

[1] Communist China; Nationalist forces on Formosa estimated at more than 500,000. [2] July 1, 1951. [3] 1948.

NAVIES[1] (warships, 1950)

1. United States 541
2. United Kingdom 151
3. U.S.S.R. 89
4. France 33
5. Spain 22
6. Sweden 20
7. Argentina 17
8. Canada 14
9. Australia 14
10. Turkey 11

[1] Excluding submarines and frigates and escort types; estimated number of submarines, 1950: U.S.S.R., 360; U.S., 187; United Kingdom, 57.

Famous Ship Canals of the World

Name	Location	Year opened	Length (mi.)	Width (ft.)	Depth (ft.)	Locks
Albert	Belgium	1939	80.0	53.0	16.5	6
Amsterdam–North Sea	Netherlands	1876	13.0	164.0	41.0	4
Beaumont–Port Arthur	United States	1916	40.0	200.0	34.0	..
Bruges–Zeebrugge	Belgium	1907	6.3	65.7	18.1	1
Cape Cod	United States	1914	17.5	450.0	28.9	..
Chesapeake and Delaware	United States	1927	19.0	250.0	27.0	..
Chicago Sanitary and Ship	United States	1900	30.0	110.0	22.0	1
Corinth	Greece	1893	4.0	69.0	26.3	..
Göta*	Sweden	1832	47.0	23.6	9.7	58
Houston*	United States	1914	50.0	200.0	33.0	..
Kiel	Germany	1895	53.3	144.0	37.0	4
Lake Washington	United States	1916	8.0	80.0	30.0	2
Manchester	England	1894	46.5	65.0	28.0	10
Moscow–Volga	U.S.S.R.	1937	80.0	98.4	18.0	11
Panama	Canal Zone	1914	50.0	110.0	41.0	12
Sault Ste. Marie	Canada	1895	1.2	60.0	16.8	1
Sault Ste. Marie	United States	1915	1.6	80.0	25.0	4
Suez	Egypt	1869	87.5	197.0	34.0	..
Trollhätte*	Sweden	1916	54.0	45.0	14.4	6
Welland	Canada	1931	27.6	80.0	25.0	8

* Reconstructed.


Arctic Ocean
Bering Strait
Nome
ALASKA
Yukon River
Dawson
NORTHWEST TERRITORIES
YUKON
District of Mackenzie
Gulf of Alaska
BRITISH COLUMBIA
ALBERTA
Edmonton
DOMINION OF CANADA
SASKATCHEWAN
Regina
Victoria
WASHINGTON
Columbia R.
OREGON
IDAHO
MONTANA
NORTH DAKOTA
MINNESOTA
Winnipeg
MANITOBA
SOUTH DAKOTA
WYOMING
NEBRASKA
Missouri R.
NEVADA
UTAH
COLORADO
CALIFORNIA
ARIZONA
Colorado R.
Gulf of California
NEW MEXICO
OKLAHOMA
TEXAS
Red R.
Rio Grande R.
KANSAS
IOWA
WISCONSIN
L. SUPERIOR
MICHIGAN
L. MICHIGAN
ILLINOIS
INDIANA
OHIO
MISSOURI
Mississippi R.
KENTUCKY
TENNESSEE
ARK.
MISS.
ALA.
LA.
GEORGIA
FLORIDA
Gulf of Mexico
MEXICO
Mexico City
Havana
CUBA
BAHAMA ISLANDS
HAITI
DOMINICAN REP.
PUERTO RICO
JAMAICA
Caribbean Sea
Belize
HONDURAS
GUATEMALA
Guatemala
Tegucigalpa
NICARAGUA
Managua
San Salvador
CENTRAL AMERICA
COSTA RICA
San José
PANAMA
Panama Canal
VENEZUELA
COLOMBIA
SOUTH AMERICA
GALÁPAGOS IS.
ECUADOR
PERU
BRAZIL
Pacific Ocean
ONTARIO
QUEBEC
Ottawa
Quebec
LABRADOR
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
Halifax
Hudson Bay
Hudson Strait
Baffin Bay
GREENLAND
ICELAND
FELLESMERE ISLAND
District of Franklin
District of Keewatin
L. ERIE
L. ONTARIO
NEW YORK
PENNA.
MAINE
VT.
N.H.
MASS.
CONN.
R.I.
N.J.
MD.
DEL.
W. VIRGINIA
VA.
NORTH CAROLINA
SOUTH CAROLINA
Ohio R.
0 200 400 600 800 1000
SCALE OF MILES
625

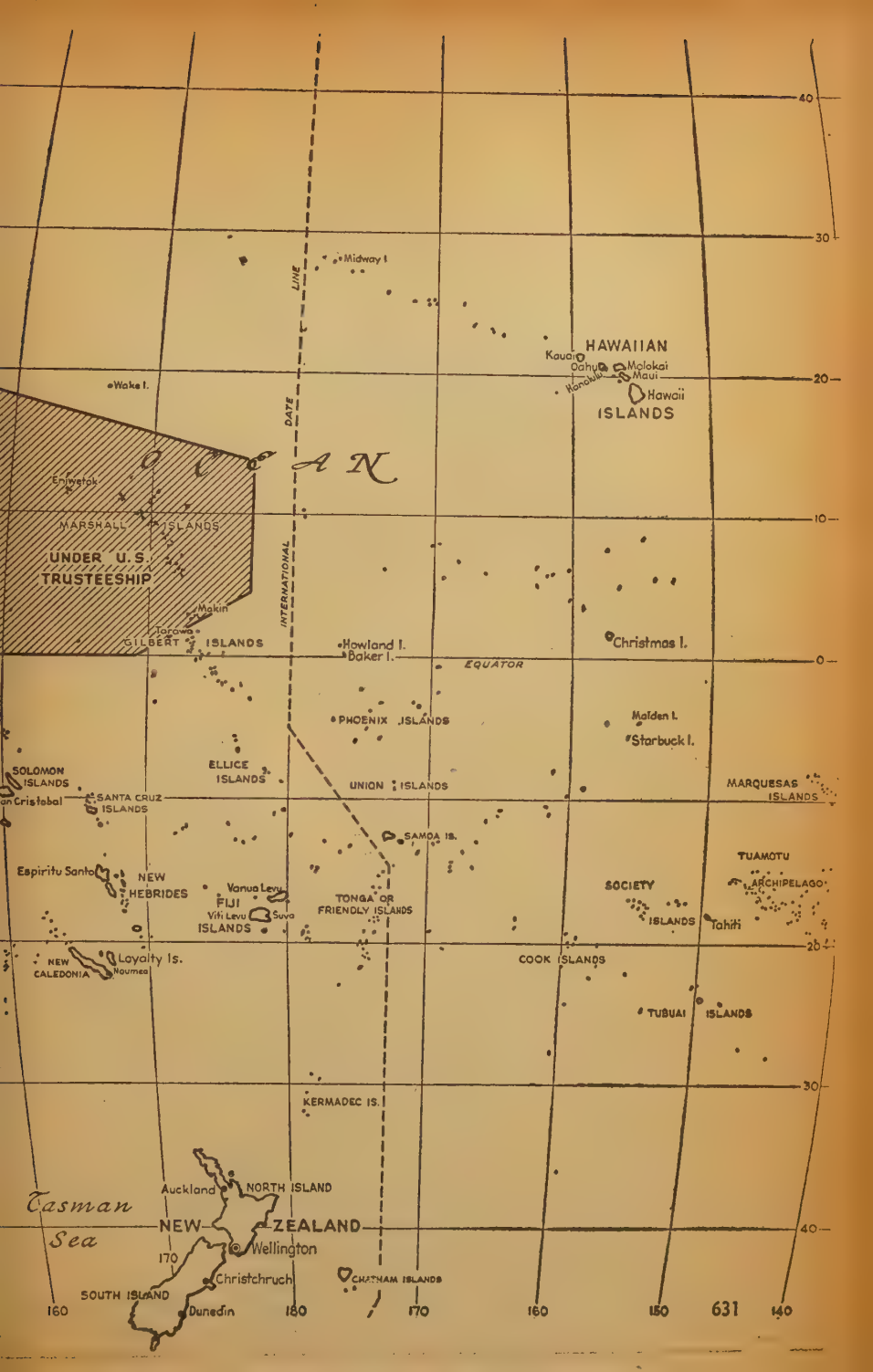

NORWAY
Oslo
Drammen
Skien
Arendal
Göteborg
SWEDEN
Aalborg
DENMARK
Copenhagen
Malmö
HEBRIDES
SCOTLAND
Inverness
Aberdeen
Dundee
Glasgow
Edinburgh
N. IRELAND
Belfast
IRELAND
Dublin
Cork
Liverpool
Manchester
Sheffield
Birmingham
WALES
ENGLAND
Norwich
Newcastle
North Sea
Amsterdam
The Hague
Rotterdam
NETHERLANDS
Kiel
Lübeck
Hamburg
Stettin
Bremen
Hanover
Berlin
Magdeburg
GERMANY
Dusseldorf
Kassel
Leipzig
Dresden
Cologne
Bonn
Erfurt
Frankfurt
Prague
Pilsen
Nuremburg
Stuttgart
Strasbourg
Augsburg
Munich
Salzburg
Atlantic Ocean
Bristol
London
Portsmouth
Plymouth
English Channel
Ghent
Antwerp
Brussels
Lille
BELGIUM
LUXEMBURG
Reims
SAAR
Havre
Rouen
Brest
Seine
Versailles
Paris
Rennes
Orléans
Troyes
Nancy
Tours
Loire
Nantes
Bourges
Dijon
Bay of Biscay
FRANCE
Bern
Zürich
Innsbruck
AUSTRIA
SWITZERLAND
LIECHTEN-STEIN
Limoges
Clermont Ferrand
St. Etienne
Geneva
Lyon
Grenoble
Rhône
Valence
Free Terr. Under UN Protection
Trieste
Milan
Turin
Po
Venice
Genoa
Bologna
Florence
Bordeaux
Toulouse
MONACO
Marseille
Nice
Leghorn
SAN MARINO
Toulon
Ebro
ANDORRA
Saragossa
SPAIN
Madrid
Barcelona
Bastia
CORSICA
Ajaccio
Rome
Naples
Sassari
SARDINIA
Cagliari
Mediterranean Sea
Palermo
SICILY
German Federal Republic (Capital, Bonn)
German Democratic Republic (Seat of Govt., Soviet Zone of Berlin)
TERRITORIAL CHANGES AFTER WORLD WAR II
Boundaries of 1937
626


Annexed by U.S.S.R.
Annexed by Poland.
Stockholm
Tallinn
ESTONIA
Dorpat
Pskov
GOTLAND
Riga
LATVIA
Moscow
-55
OLAND
Libau
Dvinsk
Tula
Baltic Sea
Memel
LITHUANIA
Smolensk
Kaunas
Vilna
Mogilev
Minsk
U. S. S. R.
Orel
Königsberg
EAST PRUSSIA
Gomel
Kursk
Vistula
Poznan
Warsaw
POLAND
Kharkov
-50
Kiev
Berdichev
Poltava
Kraków
Lwow
CZECHOSLOVAKIA
Dniester
Danube
Bratislava
Vienna
Budapest
Jassy
Nikolaev
Dnieper
Odessa
Graz
HUNGARY
Cluj
CRIMEA
Szeged
Arad
RUMANIA
Galati
45
Yalta
Brăila
Ploesti
Bucharest
Constanta
Belgrade
Craiova
Danube
YUGOSLAVIA
Ruschuk
Varna
Black Sea
Sarajevo
Spalato
Annexed by Bulgaria
Sofia
BULGARIA
Scutari
Plovdiv
Edirne
Istanbul
Scutari
-40
Bari
Tirana
Durazzo
ALBANIA
Salonika
TURKEY
ITALY
GREECE
Aegean Sea
EUBOEA
Ionian Sea
Athens
20
25
30

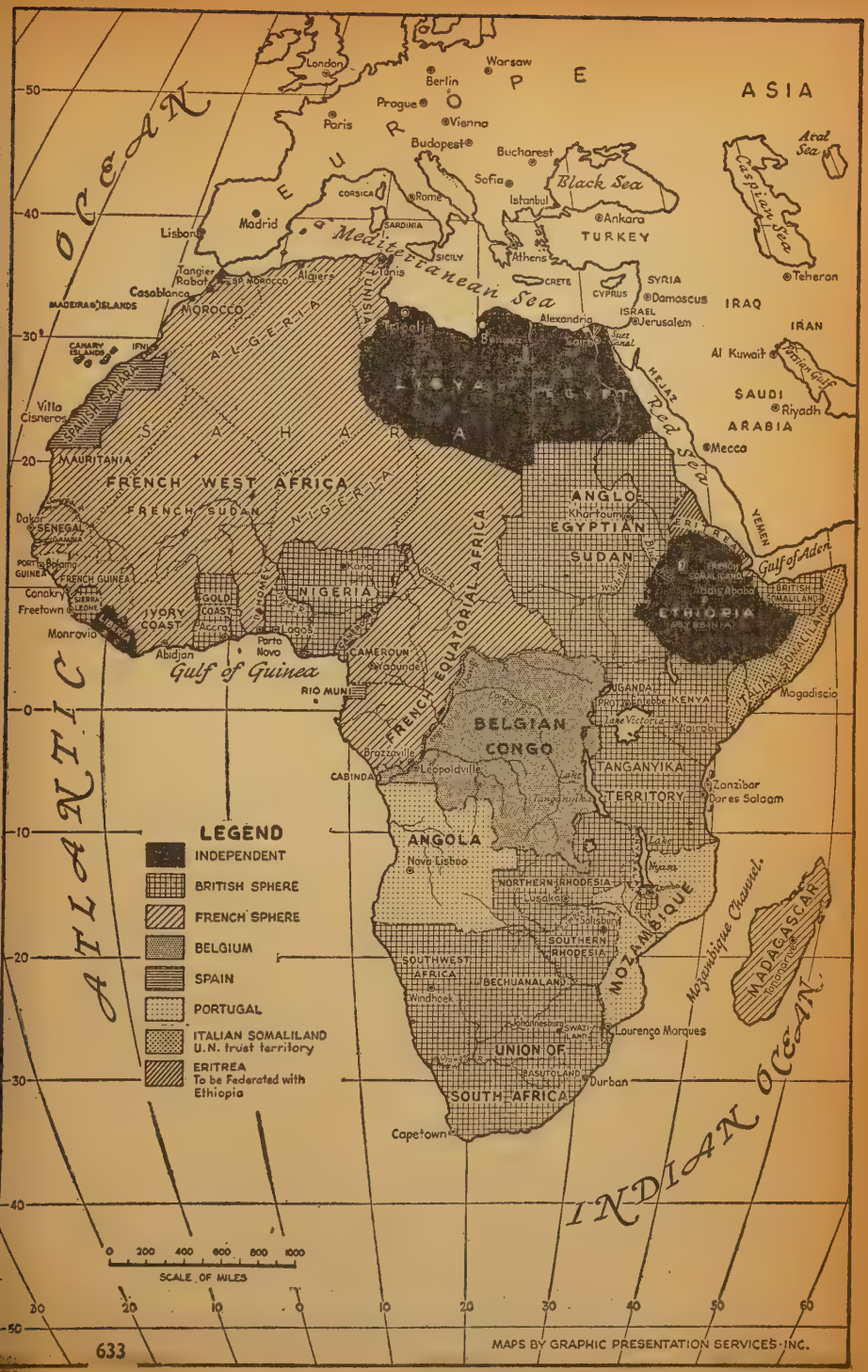

ATLANTIC OCEAN
ARCTIC
North Sea
Baltic Sea
Kara Sea
Dublin
London
Glasgow
Oslo
Stockholm
Paris
Berlin
Warsow
Moscow
EUROPE
UNION OF SOVIET
Ob R.
Tobolsk
Omsk
Irtish R.
Dniester R.
Danube R.
Volga R.
Don R.
Ural R.
Astrakhan
KIRGHIZ STEPPES
Aral Sea
Lake Balkhash
Syr Darya
Amu Darya
TURKISTAN
Bukhara
Samarkand
Yarkand
Black Sea
Caspian Sea
Athens
Izmir
Bursa
Ankara
Batum
TURKEY
Erzurum
Tiflis
Baku
CRETE
Mediterranean Sea
Cyprus
Adana
Aleppo
SYRIA
Damascus
Beirut
Tel Aviv
Jerusalem
ISRAEL
Cairo
Suez Canal
Mosul
Tabriz
Resht
Hamadan
Teheran
Meshed
IRAQ
Baghdad
Euphrates R.
Amman
JORDAN
Basra
IRAN
Isfahan
(PERSIA)
NEFUD DESERT
Kuwait
NEUTRAL ZONE
SAUDI ARABIA
Dharan
Riyadh
Mecca
BAHREIN
Persian Gulf
QATAR
TRUCIAL COAST
Shiraz
HEJAZ
RED SEA
Herat
Khyber Pass
Kabul
AFGHANISTAN
Peshawar
Srinagar
Kandahar
Lahore
Amritsar
PAKISTAN
Indus R.
BALUCHISTAN
New Delhi
Jaipur
Lucknow
Hyderabad
Karachi
Gulf of Oman
Muscat
INDIA
Ahmedabad
Indore
Nagpur
YEMEN
San'a
ADEN PROT.
OMAN
Aden
Mukalla
Arabian Sea
Bombay
SOCOTRA
GOA
Hyderabad
Bangalore
LACCADIVE ISLANDS
MALDIVE ISLANDS
CEYLON
Colombo
INDIAN
AFRICA
0 200 400 600 800
SCALE OF MILES
628
40
50
60
70
80
40
30
20
10
0


OCEAN
NEW SIBERIAN IS.
Kolyma R.
Lena R.
S I B E R I A
BERING SEA
KAMCHATKA PENINSULA
Yenisei
Yakutsk
SEA OF OKHOTSK
SAKHALIN ISLAND
KURILE ISLANDS
SOCIALIST REPUBLICS
Lake Baikal
Amur R.
Khabarovsk
HOKKAIDO
Stalino
Irkutsk
Kysylkhoto
Harbin
MANCHURIA
Vladivostok
Sea of Japan
HONSHU
Ulan Bator Khoto
MONGOLIAN PEOPLE'S REPUBLIC
THE GOBI OR SHAMO DESERT
Hsinking
Mukden
Tokyo
Yokohama
Kobe
Osaka
Tihwa
Peiping
Tientsin
Hwang Ho
KOREA
Seoul
Yellow Sea
SHIKOKU
Nagasaki
KYUSHU
SINKIANG
TARIM DESERT
CHINA
Nanking
Shanghai
East China Sea
Yangtze R.
Hankow
Hangchow
Yungkia
Chengtu
Chungking
Changsha
Foochow
Amoy
RYUKYU IS.
FORMOSA
TIBET
Lhasa
Kweiyang
Canton
Hong Kong
Katmandu
Punakha
BHUTAN
Patna
Ganges
Brahmaputra R.
PAKISTAN
INDIA
Calcutta
Cuttack
BURMA
Akyab
Irrawaddy R.
Rangoon
Hanoi
LAOS
HAINAN
Mekong R.
LUZON
Manila
PHILIPPINE ISLANDS
THAILAND
INDO-CHINESE FEDERATION
Bangkok
CAM-BODIA
VIET-NAM
Saigon
Bay of Bengal
ANDAMAN ISLANDS
Gulf of Siam
South China Sea
Sulu Sea
MINDANAO
PALAWAN
NICOBAR ISLANDS
NATUNA IS.
BRUNEI
NORTH BORNEO
Celebes Sea
CELEBES
Manado
MALAYAN FEDERATION
SARAWAK
BORNEO
SUMATRA
Singapore
INDONESIA
PACIFIC OCEAN
OCEAN
30
110
120
130
629


MONGOLIA
MANCHURIA
THE GOBI OR SHAMO DESERT
Peiping
Tientsin
SEA OF JAPAN
HOKKAIDO
KOREA
CHINA
Hwang Ho
Yellow Sea
HONSHU
Tokyo
JAPAN
SHIKOKU
KYUSHU
Yangtze River
Hankow
Nonking
Shanghai
Hangchow
EAST CHINA SEA
Chungking
Changsha
Yungkia
RYUKYU IS.
BONIN IS.
VOLCANO IS.
MARCUS
Swatow
Canton
Hong Kong
FORMOSA
BURMA
Hanoi
HAINAN
THAILAND
INDO-CHINESE FEDERATION
Bangkok
Saigon
Gulf of Siam
SOUTH CHINA SEA
LUZON
Manila
PHILIPPINE ISLANDS
MINDORO
PANAY
SAMAR
LEYTE
PALAWAN
NEGROS
Sulu Sea
MINDANAO
Davao
MARIANAS ISLANDS
GUAM U.S.
PACIFIC
PALAU IS.
Truk Is.
CAROLINE ISLANDS
UNDER U. S. TRUSTEESHIP
Jesselton
NORTH BORNEO
BRUNEI
MALAYAN UNION
NATUNA IS.
Celebes Sea
Singapore
Pontianak
SARAWAK
Kuching
HALMAHERA
MOLUCCAS
BORNEO
NETHERLANDS EAST INDIES
SCHOUTEN IS
Hollandia
ADMIRALTY IS.
NEW IRELAND
BISMARCK ARCHIPELAGO
Rabaul
Bougainville
Kieta
NEW BRITAIN
SOLOMON ISLANDS
Guadalcanal
Koukenaa
NEW GUINEA
TERRITORY OF NEW GUINEA
PAPUA
Port Moresby
Arafura Sea
Torres Strait
Cape York
Banda Sea
BOETONG IS.
Ceram
Amboina
Java Sea
Cheribon
Djakarta
TIMOR
TIMOR SEA
Darwin
Gulf of Carpentaria
CORAL SEA
Wyndham
Derby
NORTHERN TERRITORY
Cooktown
Tropic of Capricorn
GREAT SANDY DESERT
QUEENSLAND
AUSTRALIA
GIBSON DESERT
Carnarvon
Rockhampton
WESTERN AUSTRALIA
GREAT VICTORIA DESERT
SOUTH AUSTRALIA
Brisbane
Perth
Fremantle
Albany
Port Augusta
Port Pirie
NEW SOUTH WALES
Lachlan R.
Murray R.
Sydney
Adelaide
Canberra
VICTORIA
Melbourne
INDIAN OCEAN
REPUBLIC OF INDONESIA
0 200 400 600 800 1000
SCALE OF MILES
TASMANIA
Hobart
90
100
110
120
130
140
150
10
20
30
40


Midway I.
LINE
DATE
INTERNATIONAL
HAWAIIAN
ISLANDS
Kauai
Oahu
Honolulu
Molokai
Maui
Hawaii
Wake I.
PACIFIC OCEAN
Eniwetok
MARSHALL ISLANDS
UNDER U.S. TRUSTEESHIP
Makin
Tarawa
GILBERT ISLANDS
Howland I.
Baker I.
EQUATOR
Christmas I.
PHOENIX ISLANDS
Malden I.
Starbuck I.
SOLOMON ISLANDS
San Cristobal
ELLICE ISLANDS
SANTA CRUZ ISLANDS
UNION ISLANDS
MARQUESAS ISLANDS
SAMOA IS.
TUAMOTU ARCHIPELAGO
Espiritu Santo
NEW HEBRIDES
Vanua Levu
FIJI ISLANDS
Viti Levu
Suva
TONGA OR FRIENDLY ISLANDS
SOCIETY ISLANDS
Tahiti
NEW CALEDONIA
Loyalty Is.
Noumea
COOK ISLANDS
TUBUAI ISLANDS
KERMADEC IS.
Tasman Sea
Auckland
NORTH ISLAND
NEW ZEALAND
Wellington
Christchurch
SOUTH ISLAND
Dunedin
CHATHAM ISLANDS
40
30
20
10
0
20
30
40
160
170
180
170
160
150
140


CARIBBEAN SEA
CURAÇAO
WINDWARD ISLANDS
TRINIDAD
Maracaibo
Cartagena
Barquisimeto
Caracas
Gulf of Darién
PANAMA
VENEZUELA
Orinoco R.
Merida
Ciudad Bolivar
Georgetown
Paramaribo
Cayenne
BRITISH GUIANA
SURINAM
FRENCH GUIANA
Medellin
Ibague
Cali
Bogotá
COLOMBIA
Macapá
Quito
ECUADOR
Guayaquil
Borcellos
Negro R.
Obidos
Manaos
Amazon R.
Belém (Pará)
Parnahyba
Fortaleza
Natal
Iquitos
Purus R.
Madeira R.
Tapajos R.
Tocantins R.
Recife
Maceió
Humaytá
PERU
BRAZIL
São Francisco R.
Barra
MATTO GROSSO
Lima
Callao
Cuzco
São Salvador (Bahia)
BOLIVIA
Matto Grosso
Arequipa
La Paz
Cochabamba
Oruro
Goyaz
Carovellas
Potosi
Sucre
Iquique
Tarija
Paraguay R.
Bello Horizonte
Compos
PARAGUAY
Campinas
São Paulo
Rio de Janeiro
Antofagasta
Concepción
Santos
Salta
Asunción
Curatiba
Tucumán
Uruguay R.
Porto Alegre
Córdoba
Santa Fé
Pelotas
ARGENTINA
URUGUAY
Valparaiso
Mendoza
Rosario
Santiago
Buenos Aires
La Plata
Montevideo
Talca
Concepción
Bahia Blanca
CHILOE I.
PATAGONIA
FALKLAND ISLANDS
St. of Magellan
TIERRA DEL FUEGO
Cape Horn
PACIFIC OCEAN
ATLANTIC OCEAN
SOUTH AMERICA
0 200 400 600 800
SCALE OF MILES
632



MAPS BY GRAPHIC PRESENTATION SERVICES, INC.

Record Passages of Atlantic (Screw) Steamships

Source: U. S. Maritime Commission, Aug. 22, 1946.

WESTWARD PASSAGES

Date	Ship and (flag*)	To New York from	Time D. H. M.	Speed knots	Sea miles
1867	CITY OF PARIS (B) (Time record only)	Queenstown	8 4 1	.....	.....
1872	ADRIATIC (B)	"	7 23 17	14.52	.....
1875	CITY OF BERLIN† (B)	"	7 18 2	15.2	.....
1875 1877	GERMANIC (B)	"	7 11 37	15.75	.....
1876	BRITANNIC (B)	"	.. .. ..	15.46	.....
1877			7 10 53	.....	.....
1882	ALASKA† (B)	"	.. .. ..	16.04	.....
1883			6 21 40	.....	.....
1884	OREGON† (Guion) (B)	"	6 10 9	.....	.....
1884	OREGON (Cunard) (B)	"	6 9 42	18.16	.....
1887	UMBRIA (B)	"	6 4 34	18.91	.....
1885 1888	ETRURIA† (B)	"	6 1 44	19.57	.....
1889	CITY OF PARIS† (B)	"	.. .. ..	20.01	.....
1892			5 14 24	20.7	.....
1890	TEUTONIC† (B)	"	.. .. ..	20.17	.....
1891			5 16 31	20.35	.....
1891	MAJESTIC† (B)	"	5 18 8	20.11	.....
1892			.. .. ..	20.41	.....
1893	CAMPANIA (B)	"	5 9 6	.....	.....
1894	LUCANIA† (B)	"	5 7 23	21.82	.....
1898	KAISER WILHELM DER GROSSE† (G)	Southampton	.. .. ..	22.07	.....
			5 15 20	22.29	.....
1900 1901	DEUTSCHLAND (G)	"	5 11 54	23.15	3,044
1907	LUSITANIA† (B)	Queenstown	.. .. ..	24.00	.....
1910			4 11 40	25.88	.....
1908 1911	MAURETANIA† (B)	"	4 10 41	26.06	.....
1929	" (B)	Cherbourg	4 21 44	26.9	3,162
1929	BREMEN† (G)	"	4 17 42	27.83	.....
1930	EUROPA† (G)	"	4 17 6	27.91	3,157
1933	REX† (I)	Gibraltar	4 13 58	28.92	3,181
1935	NORMANDIE† (F)	Bishop's Rock	4 3 2	29.98	3,015
1936 1938	QUEEN MARY† (B)	"	4 0 27	30.14	2,939
			3 21 48	30.99	2,907

EASTWARD PASSAGES

Date	Ship and (flag*)	From New York to	Time D. H. M.	Speed knots	Sea miles
1852	GREAT BRITAIN (B)	Liverpool	11 0 0	.....	.....
1869	CITY OF BRUSSELS† (B)	Queenstown	7 22 3	14.65	.....
1873	BALTIC† (B)	"	7 20 9	15.11	.....
1875	CITY OF BERLIN† (B)	"	7 15 28	15.37	.....
1876	GERMANIC† (B)	"	7 15 17	15.78	.....
1876	BRITANNIC† (B)	"	7 12 41	15.95	.....
1879	ARIZONA† (B)	"	7 8 0	15.95	.....
1882 1883	ALASKA† (B)	"	6 18 37	.....	.....
			.. .. ..	16.88	.....
1884	OREGON (Guion) (B)†	"	6 16 57	.....	.....
1884	AMERICA (B)	"	6 14 8	17.8	.....
1884	OREGON† (Cunard) (B)	"	6 10 40	18.18	.....
1885 1888	ETRURIA† (B)	"	6 4 54	19.41	.....
1888	UMBRIA (B)	"	6 3 12	.....	.....
1889	CITY OF PARIS† (B)	"	5 22 50	19.49	.....
1891	TEUTONIC (B)	"	5 21 3	19.78	.....
1892	CITY OF NEW YORK (B)	"	5 19 57	20.1	.....
1894	LUCANIA† (B)	"	5 8 38	.....	.....
			.. .. ..	22.01	.....
1897 1898	KAISER WILHELM DER GROSSE† (G)	Southampton	5 15 25	22.51	.....
1900 1901	DEUTSCHLAND† (G)	Eddystone Lt.	5 7 38	23.51	3,082
1904	KAISER WILHELM II† (G)	Plymouth	5 8 16	23.58	.....
1907	LUSITANIA† (B)	Queenstown	.. .. ..	23.61	.....
1910			4 15 50	25.57	.....
1908 1911	MAURETANIA† (B)	"	4 13 41	25.89	.....
1924	" (B)	Cherbourg	5 1 49	26.25	3,198
1929	" (B)	Plymouth	4 17 50	27.22	3,098
1929	BREMEN† (G)	Cherbourg	4 14 30	27.91	3,084
1933			4 17 43	28.14	.....
1933			4 16 15	28.51	3,199
1935	NORMANDIE† (F)	Bishop's Rock	4 3 25	30.35	.....
1937			4 .. 6	30.99	2,978
1936 1938	QUEEN MARY† (B)	"	3 23 57	30.63	.....
			3 20 42	31.69	2,938

*(B)—British; (G)—German; (I)—Italian; (F)—French. †Vessels which have held the Blue Riband.

SCIENCE

★

MEASURES AND WEIGHTS

UNITS OF LENGTH

Metric System

The meter was originally intended to be one ten-millionth of the earth's quadrant, a quadrant being one-quarter of a circumference. However, because of the difficulty of determining such a length with accuracy, this definition was abandoned. The meter is now considered to be the distance at 0°C between two microscopic marks on the International Prototype Meter, a platinum-iridium bar, kept by the International Bureau of Weights and Measures at Sèvres, France, a suburb of Paris.

In 1927, the International Conference on Weights and Measures adopted a secondary definition of the meter in terms of light-waves. According to this definition, one meter is equivalent to 1,553,164.13 wave lengths of the red light from cadmium.

Unit	Comparison	English equivalent
Millimeter (mm)	.001 meter	.0394 inch
Centimeter (cm)	.01 meter	.3937 inch
Decimeter (dm)	.1 meter	3.937 inches
Meter (m)		3.2808 feet
Dekameter (dkm)	10 meters	32.8083 feet
Hectometer (hm)	100 meters	328.0833 feet
Kilometer (km)	1000 meters	.62137 mile

English System

According to legend, the yard was established by Henry I as the distance from the point of his nose to the end of his thumb when his arm was outstretched. The British Imperial Yard was defined in 1878 by the Weights and Measures Act as the distance at 62°F between two fine lines on gold studs sunk in a bronze bar known as the "No. 1 Standard Yard." This is equivalent to .914399 meter. In the United States, the yard is defined in terms of the meter, using as a standard the U. S. Prototype Meter. According to this definition, the yard is 3600/3937 (or .914402) meter, slightly longer than the British Imperial Yard.

Unit	Comparison	Metric equivalent
Inch (in.)		25.4001 millimeters
Foot (ft)	12 inches	.3048 meter
Yard (yd)	36 inches 3 feet	.9144 meter
Rod (rd)	16½ feet 5½ yards	5.0292 meters
Furlong (fur.)	660 feet 220 yards 40 rods	201.1684 meters
Mile (mi)*	5280 feet 1760 yards 320 rods 8 furlongs	1.6093 kilometers

* Known as statute mile. See nautical mile under Miscellaneous Units.

UNITS OF AREA

Metric System

Unit	Comparison	English equivalent
Square millimeter (mm²)	.000001 m²	.0015 sq in.
Square centimeter (cm²)	.0001 m²	.155 sq in.
Square decimeter (dm²)	.01 m²	15.5 sq in.
square meter (m²)*		10.7639 sq ft
Square dekameter (dkm²)†	100 m²	3.9537 sq rd
Square hectometer (hm²)‡	10,000 m²	2.471 acres
Square kilometer (km²)	1,000,000 m²	.3861 sq mi

* Also known as a centare (ca).
† Also known as an are (a).
‡ Also known as a hectare (ha).

English System

Unit	Comparison	Metric equivalent
Square inch (sq in.)		6.4516 cm²
Square foot (sq ft)	144 sq in.	.0929 m²
Square yard (sq yd)	1296 sq in. 9 sq ft	.8361 m²
Square rod (sq rd)	272¼ sq ft 30¼ sq yds	25.293 m²
Acre	43,560 sq ft 4,840 sq yd 160 sq rd	.4047 ha
Square mile (sq mi)	27,878,400 sq ft 3,097,600 sq yd 102,400 sq rd 640 acres	2.5900 km²

UNITS OF VOLUME

Metric System

Unit	Comparison	English equivalent
Cubic millimeter (mm³)	.000000001 m³	.00006 cu in.
Cubic centimeter (cm³)	.000001 m³	.061 cu in.
Cubic decimeter (dm³)	.001 m³	61.0234 cu in.
Cubic meter (m³)*		35.3145 cu ft

* Also known as a stere (s).

English System

Unit	Comparison	Metric equivalent
Cubic inch (cu in.)		16.3872 cm³
Cubic foot (cu ft)	1728 cu in.	.0283 m³
Cubic yard (cu yd)	46,656 cu in. 27 cu ft	.7646 m³
Cord (cd)	128 cu ft	3.6246 m³

UNITS OF WEIGHT OR MASS

The term *mass* denotes the amount of matter contained in an object, while the term *weight* denotes the gravitational pull of the earth on the object. For practical purposes, the two terms are synonymous.

Metric System

The gram was originally intended to be equal to the mass of one cubic centimeter of pure water at 4°C. However, because of the difficulty of making exact measurement, a small error was made; and it has since been found that a kilogram of pure water occupies 1.000028 cubic decimeters. The standard for the kilogram is a platinum-iridium cylinder, called the International Prototype Kilogram, which is kept at the International Bureau of Weights and Measures in France.

Unit	Comparison	English equivalents Avdp.	Troy	Apoth.
Milligram (mg)	.001 gram	.0154 grain	.0154 grain	.0154 grain
Centigram (cg)	.01 gram	.1543 grain	.1543 grain	.1543 grain
Decigram (dg)	.1 gram	1.5432 grains	1.5432 grains	1.5432 grains
Gram (g)		.0353 ounce	.0322 ounce	.0322 ounce
Dekagram (dkg)	10 grams	.3527 ounce	.3215 ounce	.3215 ounce
Hectogram (hg)	100 grams	3.5274 ounces	3.2151 ounces	3.2151 ounces
Kilogram (kg)	1000 grams	2.2046 pounds	2.6792 pounds	2.6792 pounds
Metric ton (t)	1000 kg	1.1023 tons *		

* Short tons. A metric ton is equivalent to .9842 long ton

English System

The English System is complicated by the existence of three different kinds of weight: *avoirdupois weight*, used for common purposes; *troy weight*, used for weighing gold, silver, etc.; and *apothecaries weight*, used for making up medical prescriptions.

The British Imperial Pound (avoirdupois) is defined as the mass of a pure platinum cylinder kept by the Standards Department of the Board of Trade. In the United States, the pound (avoirdupois) is defined in terms of the kilogram, using as a standard the U. S. Prototype Kilogram. According to this definition, the pound is equal to .4535924277 kilogram, making it infinitesimally smaller than the British Imperial Pound.

Avoirdupois Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Dram (dr avdp)	27.3438 grains	1.7718 grams
Ounce (oz avdp)	16 drams	28.3495 grams
	437.5 grains	
Pound (lb avdp)	7000 grains	.4536 kilogram
	256 drams	
	16 ounces	
Hundredweight (cwt)*	100 pounds	45.3592 kilograms
Ton (tn)†	2000 pounds	.9072 metric ton

* Known as the short hundredweight, which is in use in the United States and Canada. Great Britain uses the long hundredweight (112 lb or 50.8024 kg).

† Known as the short ton, which is in use in the United States and Canada. Great Britain uses the long ton (2240 lb or 1.01605 metric tons).

Troy Weight

Unit	Comparison	Metric equivalent
Grain		.0648 gram
Pennyweight (dwt)	24 grains	1.5552 grams
Ounce (oz t)	480 grains	31.1035 grams
	20 pennyweights	
Pound (lb t)*	5760 grains	.3732 kilogram
	240 pennyweights	
	12 ounces	

* Declared illegal in Great Britain.

Apothecaries Weight

Grain		.0648 gram
Scruple (s ap or ℈)	20 grains	1.296 grams
Dram (dr ap or ʒ)	60 grains	3.8879 grams
	3 scruples	
Ounce (oz ap or ℥)	480 grains	31.1035 grams
	24 scruples	
	8 drams	
Pound (lb ap)	5760 grains	.3732 kilogram
	288 scruples	
	96 drams	
	12 ounces	

UNITS OF CAPACITY

Metric System

The liter is a secondary unit of capacity defined as the volume occupied by one kilogram of pure water at 4°C. It was intended that the liter should exactly equal one cubic decimeter, but as an error was made in measurement, has since been found to equal 1.000028 cubic decimeters.

Unit	Comparison	English equivalents Liquid	Dry
Milliliter (ml)	.001 liter	.0338 fl oz	.0018 pt
Centiliter (cl)	.01 liter	.3381 fl oz	.0182 pt
Deciliter (dl)	.1 liter	3.3815 fl oz	.1816 pt
Liter (l)		1.0567 qt	.9081 qt
Dekaliter (dkl)	10 liters	2.6418 gal	1.1351 pk
Hectoliter (hl)	100 liters	26.4178 gal	2.8378 bu

English System

In Great Britain, the standard unit of capacity for measuring both liquid and dry commodities is the British Imperial Gallon. It is defined as the volume of ten pounds of pure water at 62°F and contains 277.418 cubic inches. The bushel is defined as eight gallons (2218.192 cubic inches).

In the United States, there are two separate standards. The unit for measuring liquids is the gallon, which is defined as 231 cubic inches; the unit for measuring dry commodities is the bushel, which is defined as 2150.42 cubic inches.

Liquid Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Minim (min or m)*		.0038	.0616 ml
Fluid dram (fl dr)	60 min	.2256	3.6966 ml
Fluid ounce (fl oz)	8 fl dr	1.8047	29.5729 ml
Gill (gi)	32 fl dr 4 fl oz	7.2188	118.292 ml
Pint (pt)	16 fl oz 4 gi	28.875	.4732 liter
Quart (qt)	32 fl oz 8 gi 2 pt	57.75	.9463 liter
Gallon (gal)	32 gi 8 pt 4 qt	231	3.7853 liters

* Approximately one drop.

Dry Measure (U. S.)

Unit	Comparison	Cubic inches	Metric equivalent
Pint (pt)		33.6003	.5506 liter
Quart (qt)	2 pints	67.2006	1.1012 liters
Peck (pk)	16 pints 8 quarts	537.605	8.8096 liters
Bushel (bu)	64 pints 32 quarts 4 pecks	2150.42	35.2383 liters

UNITS OF CIRCULAR MEASURE

Unit	Comparison
Second (″)	
Minute (′)	60 seconds
Degree (°)	60 minutes
Right angle	90 degrees
Straight angle	180 degrees
Circle	360 degrees

COMMON FORMULAS

Circumference

Circle: $C=\pi d$, in which π is 3.1416 and d the diameter.

Area

Triangle: $A=\frac{ab}{2}$, in which a is the base and b the height.

Square: $A=a^2$, in which a is one of the sides.

Rectangle: $A=ab$, in which a is the base and b the height.

Trapezoid: $A=\frac{h(a+b)}{2}$, in which h is the height, a the longer parallel side, and b the shorter.

Regular pentagon: $A=1.720a^2$, in which a is one of the sides.

Regular hexagon: $A=2.598a^2$, in which a is one of the sides.

Regular octagon: $A=4.828a^2$, in which a is one of the sides.

Circle: $A=\pi r^2$, in which π is 3.1416 and r the radius.

Volume

Cube: $V=a^3$, in which a is one of the edges.

Rectangular prism: $V=abc$, in which a is the length, b the width, and c the depth.

Pyramid: $V=\frac{Ah}{3}$, in which A is the area of the base and h the height.

Cylinder: $V=\pi r^2h$, in which π is 3.1416, r the radius of the base, and h the height.

Cone: $V=\frac{\pi r^2h}{3}$, in which π is 3.1416, r the radius of the base, and h the height.

Sphere: $V=\frac{4\pi r^3}{3}$, in which π is 3.1416 and r the radius.

Miscellaneous

Speed per second acquired by falling body: $v=32t$, in which t is the time in seconds.

Distance in feet traveled by falling body: $d=16t^2$, in which t is the time in seconds.

Speed of sound in feet per second through any given temperature of air:

$V=\frac{1087\sqrt{273+t}}{16.52}$, in which t is the temperature Centigrade.

Cost per hour of operation of electrical device: $C=\frac{Wtc}{1000}$, in which W is the number of watts, t the time in hours, and c the cost per kilowatt-hour.

Conversion of matter into energy (Einstein's Theorem): $E=mc^2$, in which E is the energy in ergs, m the mass of the matter in grams, and c the speed of light in centimeters per second. ($c^2=9\cdot10^{20}$).

Abbreviations

The National Bureau of Standards recommends that the period be omitted after all abbreviations of units unless the abbreviation forms an English word, and that the same abbreviation be used for both singular and plural.

FAHRENHEIT AND CENTIGRADE SCALES

Zero on the Fahrenheit scale represents the temperature produced by the mixing of equal weights of snow and common salt.

Absolute zero is theoretically the lowest possible temperature, the point at which all molecular motion would cease.

	F	C
Boiling point of water	212	100°
Freezing point of water	32°	0°
Absolute zero	–459.6°	–273.1°

To convert Fahrenheit to Centigrade, subtract 32 and multiply by 5/9.

To convert Centigrade to Fahrenheit, multiply by 9/5 and add 32.

ROMAN NUMERALS

Roman numerals are expressed by letters of the alphabet and are rarely used today except for formality or variety.

There are three basic principles for reading Roman numerals:

1. A letter repeated once or twice repeats its value that many times. (XXX=30, CC=200, etc.).

2. One or more letters placed after another letter of greater value increases the greater value by the amount of the smaller. (VI=6, LXX=70, MCC=1200, etc.).

3. A letter placed before another letter of greater value decreases the greater value by the amount of the smaller. (IV=4, XC=90, CM=900, etc.).

Letter	Value	Letter	Value
I	1	LX	60
II	2	LXX	70
III	3	LXXX	80
IV	4	XC	90
V	5	C	100
VI	6	D	500
VII	7	M	1,000
VIII	8	V̄	5,000
IX	9	X̄	10,000
X	10	L̄	50,000
XX	20	C̄	100,000
XXX	30	D̄	500,000
XL	40	M̄	1,000,000
L	50		

SIMPLE INTEREST FOR $100

To find the interest for any amount of money, move the decimal point of that amount two places to the left and multiply by the figure obtained from the table.

For figuring simple interest, the year is considered to have 360 days.

	1 Day	7 Days	1 Month	3 Months	6 Months	1 Year
2%	$.00556	$.03889	$.16667	$.50000	$1.00000	$2.00000
2½%	.00694	.04861	.20833	.62500	1.25000	2.50000
3%	.00833	.05833	.25000	.75000	1.50000	3.00000
3½%	.00972	.06806	.29167	.87500	1.75000	3.50000
4%	.01111	.07778	.33333	1.00000	2.00000	4.00000
4½%	.01250	.08750	.37500	1.12500	2.25000	4.50000
5%	.01389	.09722	.41667	1.25000	2.50000	5.00000
5½%	.01528	.10694	.45833	1.37500	2.75000	5.50000
6%	.01667	.11667	.50000	1.50000	3.00000	6.00000
6½%	.01806	.12639	.54167	1.62500	3.25000	6.50000
7%	.01944	.13611	.58333	1.75000	3.50000	7.00000
8%	.02222	.15556	.66667	2.00000	4.00000	8.00000
9%	.02500	.17500	.75000	2.25000	4.50000	9.00000
10%	.02778	.19444	.83333	2.50000	5.00000	10.00000

MISCELLANEOUS UNITS

AGATE: Originally a measurement of type size (5½ points). Now equal to 1/14 inch. Used in printing for measuring column length.

ANGSTROM (A or λ): .0001 micron or .0000001 mm. Used for measuring length of light waves.

ASTRONOMICAL UNIT (A.U.): 93,003,000 miles, the average distance of the earth from the sun. Used in astronomy.

BALE: A large bundle of goods. In the U. S., the approximate weight of a bale of cotton is 500 pounds. The weight varies in other countries.

BARREL (bbl): For liquids, 31½ gallons or 7326.5 cubic inches. For dry commodities, except cranberries: 105 dry quarts or 7056 cubic inches. For cranberries: 5826 cubic inches.

BOARD FOOT (fbm): 144 cubic inches (12 in. x 12 in. x 1 in.). Used for lumber.

BOLT: 40 yards. Used for measuring cloth.

CABLE: About 100 fathoms or 600 feet. Used for measuring lengths of cable.

CARAT (c): 200 milligrams or 3.086 grains troy. Originally the weight of a seed of the carob tree in the Mediterranean region. Used for weighing precious stones. Also a measure of the purity of gold alloy, indicating how many parts out of 24 are pure. Eighteen carat gold, for example, is ¾ pure.

CHAIN (ch): a chain 66 feet or one-tenth of a furlong in length, divided into 100 parts called links. One mile is equal to 80 chains. Used in surveying and sometimes called Gunter's chain.

CUBIT: 18 inches or 45.72 cm. Derived from distance between elbow and tip of middle finger.

ELL, ENGLISH: 1¼ yards or 1/32 bolt. Used for measuring cloth.

FATHOM (fath): 6 feet or 1.8288 m. Derived from the distance to which a man can stretch his arms. Used for measuring cables and depths of water.

FREIGHT TON (also called MEASUREMENT TON): 40 cubic feet of merchandise. Used for cargo freight.

GREAT GROSS: 12 gross or 1728.

GROSS: 12 dozen or 144.

HAND: 4 inches or 10.16 cm. Derived from the width of the hand. Used for measuring the height of horses at withers.

HOGSHEAD (hhd): 2 liquid barrels or 14,653 cubic inches.

HORSEPOWER: The power needed to lift 33,000 pounds a distance of one foot in one minute (about 1½ times the power an average horse can exert). Used for measuring the power of steam engines, etc.

KNOT: Not a distance, but the rate of speed of one nautical mile per hour. Used for measuring speed of ships.

LEAGUE: Rather indefinite and varying measure, but usually estimated at 3 miles in English-speaking countries.

LIGHT-YEAR: 5,880,000,000,000 miles, the distance light travels in a year at the rate of 186,273 miles per second. (If an astronomical unit were represented by one inch, a light-year would be represented by about one mile.) Used for measurements in interstellar space.

LINK: One-hundredth of a chain or 7.92 inches. Used in surveying.

MAGNUM: Two-quart bottle. Used for measuring wine, etc.

MICRON (μ): .001 millimeter. Used for scientific measurements.

MIL: .001 inch. Used for measuring size of wire. The area of a cross-section of wire is usually expressed in circular mils, a circular mil being the area of a circle one mil in diameter. A wire one inch in diameter has a cross-section area of one million circular mils.

MILLIMICRON (mμ): .001 micron or .000001 mm. Used for scientific measurements.

NAUTICAL MILE (also called GEOGRAPHICAL or SEA MILE): Equal to a minute or 1/21600 of a great circle of the earth. Length varies in different countries. In Great Britain, it is 6080 feet or 1853.2 meters, and in the United States, it is 6080.2 feet or 1853.248 meters. The International Hydrographic Bureau proposed in 1929 a length of 1852 meters or 6,076.097 feet, which has been adopted by several countries.

PARSEC: Approximately 3.26 light-years or 19.2 trillion miles. Term is combination of first syllables of *par*allax and *sec*ond, and distance is that of imaginary star when lines drawn from it to both earth and sun form a maximum angle or parallax of one second (1/3600 degree). Used for measuring interstellar distances.

PI (π): 3.14159265+. The ratio of the circumference of a circle to its diameter. For practical purpose, the value is used to four decimal places: 3.1416.

PICA: ⅙ inch or 12 points. Used in printing for measuring column width, etc.

PIPE: 2 hogsheads. Used for measuring wine and other liquids.

POINT: .013837 (approximately 1/72) inch or 1/12 pica. Used in printing for measuring type size.

QUINTAL: 100,000 grams or 220.46 pounds avoirdupois.

QUIRE: Used for measuring paper. Sometimes 24 sheets but more often 25. There are 20 quires in a ream.

REAM: Used for measuring paper. Sometimes 480 sheets, but more often 500 sheets.

SCORE: 20 units.

SPAN: 9 inches or 22.86 cm. Derived from the distance between the end of the thumb and the end of the little finger when both are outstretched.

STONE: Legally 14 pounds avoirdupois in Great Britain.

TOWNSHIP: U. S. land measurement of almost 36 square miles. The south border is 6 miles long. The east and west borders, also 6 miles long, follow the meridians, making the north border slightly less than six miles long. Used in surveying.

TUN: 252 gallons, but often larger. Used for measuring wine and other liquids.

DECIMAL EQUIVALENTS OF COMMON FRACTIONS

1/2	.5000	1/32	.0313	3/11	.2727	6/11	.5455
1/3	.3333	1/64	.0156	4/5	.8000	7/8	.8750
1/4	.2500	2/3	.6667	4/7	.5714	7/9	.7778
1/5	.2000	2/5	.4000	4/9	.4444	7/10	.7000
1/6	.1667	2/7	.2857	4/11	.3636	7/11	.6364
1/7	.1429	2/9	.2222	5/6	.8333	7/12	.5833
1/8	.1250	2/11	.1818	5/7	.7143	8/9	.8889
1/9	.1111	3/4	.7500	5/8	.6250	8/11	.7273
1/10	.1000	3/5	.6000	5/9	.5556	9/10	.9000
1/11	.0909	3/7	.4286	5/11	.4545	9/11	.8182
1/12	.0833	3/8	.3750	5/12	.4167	10/11	.9091
1/16	.0625	3/10	.3000	6/7	.8571	11/12	.9167

Handy Conversion Factors

To change	To	Multiply by
acres	hectares	.4047
bushels (U. S.)	hectoliters	.3524
centimeters	inches	.3937
cubic feet	cubic meters	.0283
cubic meters	cubic feet	35.3145
cubic meters	cubic yards	1.3079
cubic yards	cubic meters	.7646
feet	meters	.3048
gallons (U. S.)	liters	3.7853
grains	grams	.0648
grams	grains	15.4324
grams	ounces avdp.	.0353
hectares	acres	2.4710
hectoliters	bushels (U. S.)	2.8378
inches	millimeters	25.4001
inches	centimeters	2.5400
kilograms	pounds ap or t	2.6792
kilograms	pounds avdp.	2.2046
kilometers	miles	.6214
liters	gallons (U. S.)	.2642
liters	pecks	.1135
liters	pints (dry)	1.8162
liters	pints (liquid)	2.1134
liters	quarts (dry)	.9081
liters	quarts (liquid)	1.0567
meters	feet	3.2808
meters	yards	1.0936
metric tons	tons (long)	.9842
metric tons	tons (short)	1.1023
miles	kilometers	1.6093
millimeters	inches	.0394
ounces avdp.	grams	28.3495
pecks	liters	8.8096
pints (dry)	liters	.5506
pints (liquid)	liters	.4732
pounds ap or t	kilograms	.3732
pounds avdp.	kilograms	.4536
quarts (dry)	liters	1.1012
quarts (liquid)	liters	.9463
square feet	square meters	.0929
square meters	square feet	10.7639
square meters	square yards	1.1960
square yards	square meters	.8361
tons (long)	metric tons	1.0160
tons (short)	metric tons	.9072
yards	meters	.9144

Perfect Squares and Cubes, 1 to 2025

Number	Square root	Cube root	Number	Square root	Cube root
1	1	1	512	..	8
4	2	..	529	23	..
8	..	2	576	24	..
9	3	..	625	25	..
16	4	..	676	26	..
25	5	..	729	27	9
27	..	3	784	28	..
36	6	..	841	29	..
49	7	..	900	30	..
64	8	4	961	31	..
81	9	..	1000	..	10
100	10	..	1024	32	..
121	11	..	1089	33	..
125	..	5	1156	34	..
144	12	..	1225	35	..
169	13	..	1296	36	..
196	14	..	1331	..	11
216	..	6	1369	37	..
225	15	..	1444	38	..
256	16	..	1521	39	..
289	17	..	1600	40	..
324	18	..	1681	41	..
343	..	7	1728	..	12
361	19	..	1764	42	..
400	20	..	1849	43	..
441	21	..	1936	44	..
484	22	..	2025	45	..

Mean and Median

The mean, also called the average, of a series of quantities is obtained by finding the sum of the quantities and dividing it by the number of quantities. In the series 1,3,5,18,19,20,25, the mean or average is 13—i.e., 91 divided by 7.

The median of a series is that point which so divides it that half the quantities are on one side, half on the other. In the above series, the median is 18.

The median often better expresses the common-run, since it is not, as is the mean, affected by an excessively high or low figure. In the series 1,3,4,7,55, the median of 4 is a truer expression of the common-run than is the mean of 14.

Calories and Vitamins of Selected Foods

Source: U. S. Dept. of Agriculture, Agriculture Handbook No. 8 (June, 1950).

Food and (amount)[1]	Energy, calories	Vitamin A, Int. Units	Thiamine, mg.	Riboflavin, mg.	Niacin, mg.	Ascorbic acid, mg.
Apples (1 medium R)	76	120	.05	.04	.2	6
Bacon: medium fat (2 sl. C)	97	(0)	.08	.05	.8	0
Bananas (1 medium R)	88	430	.04	.05	.7	10
Beans: snap, green (1 cup C[2])	27	830	.09	.12	.6	18
Beef: sirloin[3] (3 oz. C)	257	(0)	.06	.16	4.1	0
Beets: red, diced (1 cup C)	68	30	.03	.07	.5	11
Bread: rye (1 sl.)	57	0	.04	.02	.4	(0)
Bread: white, enriched[4] (1 sl.)	63	0	.06	.01	.5	(0)
Bread: wholewheat (1 sl.)	55	0	.07	.03	.7	(0)
Butter (1 tbs.)	100	460[5]	...	...	...	(0)
Buttermilk: cultured[6] (1 cup)	86	10	.09	.43	.3	3
Cabbage (1 cup R)	24	80	.06	.05	.3	50
Carrots: diced (1 cup C)	44	18,130	.07	.07	.7	6
Cheese: Swiss (1 oz.)	105	410	trace	(.11)	trace	(0)
Cheese: cottage[6] (1 cup)	215	(50)	.04	.69	(.2)	(0)
Chicken: roasters[7] (4 oz.)	227	(0)	.09	.18	9.1	(0)
Chocolate: unsweetened (1 oz.)	143	20	.01	.06	.3	(0)
Corn (1 ear C)	84	390[8]	.11	.10	1.4	8
Crackers: graham (2 medium)	55	(0)	.04	.02	.2	(0)
Cream: light (½ pt.)	489	1,980	.07	.34	.2	3
Eggs: poached (1)	77	540	.04	.12	trace	0
Flour: wheat, enriched[9] (1 cup)	401	(0)	.48	.29	3.8	(0)
Grapefruit (½ medium)	75	20	.07	.04	.4	76
Ham: smoked[3] (3 oz. C)	339	(0)	.46	.18	3.5	0
Hamburger (3 oz. C)	316	(0)	.07	.16	4.1	0
Honey (1 tbs.)	62	(0)	trace	.01	trace	1
Ice cream (1/7 qt.)	167	420	.03	.15	.1	1
Lamb: leg roast[3] (3 oz. C)	230	(0)	.12	.21	4.4	0
Lemons (1 medium)	20	0	.03	trace	.1	31
Liver: calf (3 oz. R)	120	19,130	.18	2.65	13.7	30
Macaroni: enriched (1 cup C)	209	(0)	.24	.15	2.0	(0)
Margarine[10] (1 tbs.)	101	460	...	...	...	(0)
Milk: fluid, whole (1 cup)	166	(390)	.09	.42	.3	3
Molasses: cane, medium (1 tbs.)	46	...	...	.02	.2	...
Oatmeal (1 cup C)	148	(0)	.22	.05	.4	(0)
Oranges (1 medium)	70	(290)	.12	.04	.4	77
Oysters[11] (1 cup R)	200	770	.35	.48	2.8	...
Peaches (1 medium R)	46	880	.02	.05	.9	8
Peanut butter (1 tbs)	92	0	.02	.02	2.6	(0)
Peanuts: roasted, chopped (1 tbs.)	50	0	.03	.01	1.5	(0)
Peas: green, immature (1 cup C)	111	1,150	.40	.22	3.7	24
Plums (1 R)	29	200	.04	.02	.3	3
Pork: loin[3] (3 oz. C)	284	(0)	.71	.20	4.3	0
Potatoes: sweet (1 baked)	183	11,410[12]	.12	.08	.9	28
Potatoes: white (1 cup mashed[13])	159	80	.16	.10	1.7	14
Prunes: unsulfured (1 cup C)	310	2,210	.07	.20	2.0	2
Raisins: unsulfured (1 tbs.)	26	trace	.02	.01	trace	trace
Rice: white (1 cup C)	201	(0)	.02	.01	.7	(0)
Round steak[3] (3 oz. C)	197	(0)	.06	.19	4.7	0
Salmon: pink, canned (3 oz.)	122	60	.03	.16	6.8	(0)
Sausage: pork, canned (4 oz.)	340	(0)	.23	.27	3.4	0
Spaghetti: enriched (1 cup C)	218	(0)	.25	.15	2.1	(0)
Spinach (1 cup C)	46	21,200	.14	.36	1.1	54
Sugar: granulated (1 tsp.)	16	(0)	(0)	(0)	(0)	(0)
Tomatoes (1 medium R)	30	1,640	.08	.06	.8	35
Turkey: medium fat (4 oz. R)	304	trace	.10	.16	9.1	(0)
Turnips: diced (1 cup C)	42	trace	.06	.09	.6	28
Veal cutlet[3] (3 oz. C)	184	(0)	.07	.24	5.2	0

[1] R—raw; C—cooked. [2] Cooked short time in small amount of water. [3] Boneless. [4] 4% nonfat milk solids. [5] Year-round average. [6] Made from skim milk. [7] Bone out. Vitamin values based on muscle meat only. [8] Based on yellow corn; white corn contains only a trace. [9] Patent. [10] Vitamin A added. [11] Meat only. [12] If very pale varieties only were used, value would be much lower. [13] Milk added.

NOTE: Parentheses denote imputed values. The sign . . . shows that no basis could be found for imputing a value although there was some reason to believe that a measurable amount might be present.

Chemical Elements

Source: Professor Philip S. Chen, Atlantic Union College.

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
1	Hydrogen	H	1.0080	0.07‡	−259.14	−252.7	1	3	Cavendish	1766
2	Helium	He	4.003	0.15‡	<−272.2	−268.9	0	2	Ramsay	1895
3	Lithium	Li	6.940	0.534	186.	>1200.	1	2	Arfvedson	1817
4	Beryllium*** (Glucinum)	Be	9.013	1.84	1350.	1500.	2	1	Vauquelin	1798
5	Boron	B	10.82	2.535§	2300.	2500±	3	2	Gay-Lussac and Thenard; Davy	1808
6	Carbon	C	12.010	2.25**	>3500.	4200.	2, 3 or 4	2	Prehistoric	....
7	Nitrogen	N	14.008	0.810‡	−209.86	−195.3	3 or 5	2	Rutherford	1772
8	Oxygen	O	16.0000	1.14‡	−218.4	−183.00	2	3	Priestley	1774
9	Fluorine	F	19.00	1.14‡	−223.	−187.	1	1	Moissan	1886
10	Neon	Ne	20.183	0.90035 (g/10°C. 760mm)	−248.67	−245.9	0	3	Ramsay and Travers	1898
11	Sodium	Na	22.997	0.9287‡	97.5	880.	1	1	Davy	1807
12	Magnesium	Mg	24.32	1.741	651.	1110.	2	3	Davy	1808
13	Aluminum	Al	26.97	2.699‡	660.0	1800.	3	1	Wöhler	1827
14	Silicon	Si	28.06	2.42**	1420.	2600.	4	3	Berzelius	1824
15	Phosphorus	P	30.98	1.83 (white)	44.1	280.	3 or 5	1	Brand	1669
16	Sulfur	S	32.066	2.0–1	112.8	444.6	2, 4 or 6	4	Prehistoric	....
17	Chlorine	Cl	35.457	1.507‡	−101.6	−34.6	1, 3, 5 or 7	2	Scheele	1774
18	Argon	A	39.944	1.423‡	−189.2	−185.7	0	3	Rayleigh and Ramsay	1894
19	Potassium	K	39.096	0.87	62.3	760.	1	3	Davy	1807
20	Calcium	Ca	40.08	1.54	810.	1170.	2	6	Davy	1808
21	Scandium	Sc	45.10	3.62 (10°C.)	1200.	2400.	3	1	Nilson	1879
22	Titanium	Ti	47.90	4.5	1800.	>3000.	3 or 4	5	Gregor	1791
23	Vanadium	V	50.95	5.69	1710.	3000.	2, 3, 4 or 5	1	Sefstrom	1830
24	Chromium	Cr	52.01	6.92	1615.	2200.	2, 3 or 6	4	Vauquelin	1798
25	Manganese	Mn	54.93	7.42	1260.	1900.	2, 3, 4, 6 or 7	1	Gahn	1774
26	Iron	Fe	55.85	7.85–88	1535.	3000.	2, 3 or 6	4	Prehistoric	....
27	Cobalt	Co	58.94	8.9	1480.	2900.	2 or 3	1	Brandt	1735
28	Nickel	Ni	58.69	8.60–90	1452.	2900.	2 or 3	5	Cronstedt	1751
29	Copper	Cu	63.54	8.30–95	1083.	2300.	1 or 2	2	Prehistoric	....
30	Zinc	Zn	65.38	7.04–16	419.43	907.	2	5	Marggraf	1746
31	Gallium	Ga	69.72	5.903	29.75	>1600.	2 or 3	2	Boisbaudran	1875
32	Germanium	Ge	72.60	5.46	958.5	2700.	4	5	Winkler	1886
33	Arsenic	As	74.91	5.73	814. (36 atm.)	615.	3 or 5	1	Albertus Magnus	1250§§
34	Selenium	Se	78.96	4.3–8	220.	688.	2, 4 or 6	6	Berzelius	1818
35	Bromine	Br	79.916	3.12‡	−7.2	58.78	1, 3, 5 or 7	2	Balard	1826
36	Krypton	Kr	83.7	2.16‡	−169.	−151.8	0	6	Ramsay and Travers	1898
37	Rubidium	Rb	85.48	1.532	38.5	700.	1	2	Bunsen and Kirchhoff	1861
38	Strontium	Sr	87.63	2.50–58	800.	1150.	2	4	Davy	1808
39	Yttrium	Y	88.92	3.80	1490.	250.	3	1	Gadolin	1794
40	Zirconium	Zr	91.22	6.44	1700.	>2900.	4	5	Kloproth	1789
41	Niobium*** (Columbium)	Nb	92.91	8.4	1950.	>3300.	3 or 5	1	Hatchett	1801
42	Molybdenum	Mo	95.95	9.01	2620±10	3700.	2, 3, 4, 5 or 6	7	Hjelm	1781
43	Technetium	Tc	98.	.....	2300.	.....	2, 3, 4 or 6	10¶¶	Perrier and Segre	1937
44	Ruthenium	Ru	101.7	12.06	2450.	>2700.	3, 4, 6 or 8	7	Klaus	1844
45	Rhodium	Rh	102.91	12.44	1955.	>2500.	3	1	Wollaston	1803
46	Palladium	Pd	106.7	12.16 (20°C.)	1555.	2200.	2 or 4	6	Wollaston	1803
47	Silver	Ag	107.880	10.503††	960.5	1950.	1	2	Prehistoric	....
48	Cadmium	Cd	112.41	8.648	320.9	767.	2	8	Stromeyer	1817
49	Indium	In	114.76	7.28	155.	1450.	1 or 3	2	Reich and Richter	1863
50	Tin	Sn	118.70	7.29	231.83	2260.	2 or 4	10	Prehistoric	....
51	Antimony	Sb	121.76	6.618	630.5	1380.	3 or 5	2	Prehistoric	....
52	Tellurium	Te	127.61	6.25**	452.	1390.	2, 4, or 6	8	von Richenstein	1782
53	Iodine	I	126.92	4.94	113.5	184.35	1, 3, 5 or 7	1	Courtois	1811

Atomic number	Element	Symbol	Atomic weight	Density gm/cc	Melting point °C.	Boiling point °C.	Valence*	Number of isotopes†	Discoverer	Date discovered
54	Xenon	Xe	131.3	3.52‡	-140.	−109.1	0	9	Ramsay and Travers	1898
55	Cesium	Cs	132.91	1.873	26.	670.	1	1	Bunsen and Kirchhoff	1860
56	Barium	Ba	137.36	3.78	850.	1140.	2	7	Davy	1808
57	Lanthanum	La	138.92	6.5	826.	1800.	3	2	Mosander	1839
58	Cerium	Ce	140.13	6.9	770.	1400.	3 or 4	4	Klaproth; Berzelius and Hisinger	1803
59	Praseodymium	Pr	140.92	6.475	940.	.....	3, 4 or 5	1	Auer von Welsbach	1885
60	Neodymium	Nd	144.27	6.96	840.	.....	3	7	Auer von Welsbach	1885
61	Promethium	Pm	147.	.....	.....	.....	3	5¶¶	Marinsky and Glendenin	1945
62	Samarium	Sm	150.43	7.7–8	1350.	.....	2 or 3	7	Boisbaudran	1879
63	Europium	Eu	152.0	.....	1100.	.....	2 or 3	2	Demarcay	1901
64	Gadolinium	Gd	156.9	.....	.....	.....	3	7	Marignac	1880
65	Terbium	Tb	159.2	.....	.....	.....	3 or 4	1	Mosander	1843
66	Dysprosium	Dy	162.46	.....	.....	.....	3	7	Boisbaudran	1886
67	Holmium	Ho	164.94	.....	.....	.....	3	1	Soret	1878
68	Erbium	Er	167.2	7.77 (?)	1250(?)	.....	3	6	Mosander	1843
69	Thulium	Tm	169.4	.....	.....	.....	3	1	Cleve	1879
70	Ytterbium	Yb	173.04	.....	1800.	.....	3	7	Marignac	1878
71	Lutetium	Lu	174.99	.....	.....	.....	3 or 4	2	Urbain	1907
72	Hafnium	Hf	178.6	13.3	1700.	3200.	4	6	Coster and von Hevesy	1923
73	Tantalum	Ta	180.88	16.6	2850.	4100.	3 or 5	1	Ekeberg	1802
74	Wolfram*** (Tungsten)	W	183.92	18.6–19.1	3370.	5900.	2, 4, 5 or 6	5	d'Elhuyar	1783
75	Rhenium	Re	186.31	20.53 (20°C.)	3000.	.....	4	2	Noddack and Berg	1925
76	Osmium	Os	190.2	22.5	2700.	5300.	2, 3, 4 or 8	7	Tennant	1804
77	Iridium	Ir	193.1	22.42	2350.	4800.	3 or 4	2	Tennant	1804
78	Platinum	Pt	195.23	21.37	1755.	4300.	2 or 4	5	De Ulloa	1748
79	Gold	Au	197.2	19.3††	1063.0	2600.	1 or 3	1	Prehistoric	....
80	Mercury	Hg	200.61	13.596‡	−38.87	356.90	1 or 2	7	Prehistoric	....
81	Thallium	Tl	104.39	11.86	303.5	1650.	1 or 3	2	Crookes	1861
82	Lead	Pb	207.21	11.347††	327.5	1620.	2 or 4	4	Prehistoric	....
83	Bismuth	Bi	209.00	9.80	271.	1450.	3 or 5	4	Geoffroy	1753
84	Polonium	Po	210.0	.....	.....	.....	..	7	Curie	1898
85	Astatine	At	211.	.....	470.	.....	1, 3, 5 or 7	2	Corson et al	1940
86	Radon	Rn	222.	9.739‡	−71.	−61.8	0	3	Dorn	1900
87	Francium	Fr	223.	.....	23.	.....	1	1	Perey	1939
88	Radium	Ra	226.05	(5)	960.	1140.	2	4	Curie	1898
89	Actinium	Ac	227	.....	.....	.....	..	2	Debierne	1899
90	Thorium	Th	232.12	11.13	1845.	3000.	4	6	Berzelius	1828
91	Protactinium	Pa	231.	.....	.....	.....	..	2	Hahn and Meitner	1917
92	Uranium	U	238.07	18.7	1850.	.....	3, 4 or 6	3	Klaproth	1789
93	Neptunium	Np	239.	.....	.....	.....	3, 4, 5 or 6	5¶¶	McMillan and Abelson	1940
94	Plutonium	Pu	238.	.....	.....	.....	3, 4, 5 or 6	9¶¶	Seaborg et al	1940
95	Americium	Am	241.	.....	.....	.....	3	5¶¶	Seaborg et al	1944
96	Curium	Cm	242.	.....	.....	.....	3	5¶¶	Seaborg et al	1944
97	Berkelium	Bk	243	.....	.....	.....	3 or 4	1¶¶	Seaborg et al	1950
98	Californium	Cf	244	.....	.....	.....	3	2¶¶	Seaborg et al	1950

* VALENCE is a measure of the extent to which an atom is able to combine directly with others.
† Isotopes are different forms of the same element, having the same atomic number but different atomic weights. The number of isotopes given includes only those that are stable and natural occurring, excluding those marked ¶¶.
‡ Liquid. § Amorphous. ¶ Graphite. ** Crystalline. †† Compressed. ‡‡ Cast. §§ Exact date doubtful
–born 1193 and died 1280. ¶¶ Have been artificially produced. *** New name adopted by International Union
f Chemistry, replacing old name in parentheses. < Is less than. > Is greater than.
Figures in parentheses are tentative or theoretical.

Note that the number of isotopes of each element is increasing by discovery or by manufacture.

Scientific Inventions, Discoveries and Theories

Source: Encyclopaedia Britannica.

Inventions

Adding machine, recording: William S. Burroughs, 1888.

Airplane: Wilbur and Orville Wright, 1903.

Air brake, railroad: George Westinghouse, 1868.

Air pump: Otto von Guericke, 1650.

Automobile: (Product of inventions of many men. Gottlieb Daimler, who c.1887 produced a vehicle powered by a high-speed internal-combustion engine, is frequently given credit.)

Bakelite: Leo H. Baekeland, 1908.

Balloon, hot-air: Joseph and Jacques Montgolfier, 1783.

Barometer: Evangelista Torricelli, 1643.

Camera, Kodak: George Eastman, 1888.

Carburetor, spray: Charles E. Duryea, 1892.

Cellophane: J. E. Brandenberger, 1912.

Celluloid: John W. Hyatt, 1870.

Clock, pendulum: Christian Huygens, 1656.

Converter, Bessemer: William Kelly, 1851. (Patent bought by Sir Henry Bessemer, who made similar invention in 1856.)

Cotton gin: Eli Whitney, 1793.

Cyanide: Nikodem Caro and Adolf Frank, 1905.

Cyclotron: Ernest O. Lawrence, 1931.

Daguerreotype process: Louis J. M. Daguerre, 1839.

Diesel engine: Rudolf Diesel, 1897.

Dynamite: Alfred B. Nobel, 1862.

Dynamo: Michael Faraday, 1831.

Dynamo, industrial: Zénobe Gramme, 1872.

Electromagnet: William Sturgeon, 1823.

Electroplating process: Luigi Brugnatelli, 1805.

Elevator, passenger: Elisha G. Otis, 1857.

Elevator safety device: Elisha G. Otis, 1852.

Engine, high-speed internal-combustion: Gottlieb Daimler, 1885.

Filament, tungsten: Irving Langmuir, 1915.

Flying shuttle: John Kay, 1733.

Food preservation, hermetically sealed: François Appert, 1804.

Fountain pen: Lewis E. Waterman, 1884. (First successful one.)

Frequency modulation (FM): Edwin H. Armstrong, 1933.

Guncotton: Christian Schönbein, 1845.

Gyrocompass: Elmer A. Sperry, 1905.

Gyroscope: Léon Foucault, 1852.

Helicopter: Louis C. Bréguet, 1909.

Hydroplane: Glenn H. Curtiss, 1911.

Lamp, electric incandescent: (Inventor uncertain; Thomas A. Edison, who made a lamp in 1879, sometimes credited.)

Lens, bifocal: Benjamin Franklin, c.1760.

Leyden jar (condenser): E. G. von Kleist, 1745.

Lightning rod: Benjamin Franklin, 1752.

Linotype machine: Ottmar Mergenthaler, 1884.

Lithography: Aloys Senefelder, 1796.

Machine gun: Richard J. Gatling, 1861.

Match, friction: John Walker, 1827.

Mercury-vapor lamp: Peter C. Hewitt, 1912.

Microscope, compound: Zacharias Janssen, 1590.

Microscope, electron: Vladimir Zworykin et al., 1939.

Miner's safety lamp: Sir Humphry Davy, 1815.

Monotype machine: Tolbert Lanston, 1887.

Motion pictures: Thomas A. Edison, 1893.

Motor, A-C: Nikola Tesla, 1892.

Ophthalmoscope: Hermann von Helmholtz, 1851.

Phonograph: Thomas A. Edison, 1877.

Photography, color: Gabriel Lippmann, 1891.

Power loom: Edmund Cartwright, 1785.

Printing, movable-type: Johann Gutenberg (?), c.1440.

Printing press, rotary: Richard Hoe, 1847.

Radio telephone: Lee De Forest, 1906.

Radio tube, diode: Sir John Ambrose Fleming, 1904.

Radio tube, triode: Lee De Forest, 1906.

Rayon: Sir Joseph Swan, 1883.

Reaper: Cyrus McCormick, 1834.

Revolver: Samuel Colt, 1835.

Rifle, automatic: John M. Browning, 1918.

Rubber, vulcanized: Ch. Goodyear, 1839.

Screw propellor: John Ericsson, 1837.

Self-starter, automobile: Charles F. Kettering, 1911.

Sewing machine: Elias Howe, 1846.

Spinning frame: Sir Richard Arkwright, 1769.

Spinning jenny: James Hargreaves, 1764.

Spinning mule: Samuel Crompton, 1779.

Steamboat: Robert Fulton, 1807. (First commercially successful one in U. S.)

Steam engine: James Watt, 1765. (First practical one.)

Tank, military: Sir Ernest Swinton, 1914.

Telegraph, electromagnetic recording: Samuel F. B. Morse, 1837.

Telephone: Alexander Graham Bell, 1876.

Telescope: Hans Lippershey (?), c.1608.
Television: Vladimir Zworykin, 1931.
Televisor: John L. Baird, 1925. (Precursor of television.)
Thermometer: Galileo Galilei, 1593.
Tire, pneumatic: John B. Dunlop, 1888.
Tractor, caterpillar: Benjamin Holt, 1900.
Transformer, electric: William Stanley, 1885.
Typewriter: Christopher Sholes, 1868. (First practical one.)
Wireless: Guglielmo Marconi, 1895. (First practical system.)
Zeppelin: Count Ferdinand von Zeppelin, 1900.

Discoveries and Theories

Adrenaline, isolation of: Jokichi Takamine, 1901.
Aluminum manufacture by electrolytic action: Charles M. Hall, 1886.
Antitoxin, diphtheria: Emil von Behring, 1890.
Atom smashing with slow neutrons: Enrico Fermi, 1934. (Experiment repeated by Lise Meitner and Otto Hahn in 1938.)
Atomic numbers: Henry Moseley, 1913.
Atomic theory: John Dalton, 1803.
Aureomycin: Benjamin M. Duggar, 1948.
Bacteria: Anton van Leeuwenhoek, 1675.
Blood, circulation of: William Harvey, 1628.
Classification of plants and animals: Carolus Linnaeus, 1737–53.
Combustion, nature of: Antoine Lavoisier, 1777.
Conditioned reflex: Ivan Pavlov, c.1910.
Deuterium (heavy hydrogen): Harold C. Urey, 1932.
Displacement of water, principle of: Archimedes, 3rd century B.C.
Electromagnetic waves: Heinrich Hertz, 1886.
Electron: Sir Joseph J. Thomson, 1897.
Electron, wave nature of: Louis Victor de Broglie, 1924.
Ether, first used as anesthetic: Crawford W. Long, 1842.
Evolution by natural selection: Charles Darwin, 1859.
Falling bodies, law of: Galileo Galilei, 1590.
Gases, laws governing: Joseph Gay-Lussac, 1809.
Geometry, systematized: Euclid, c. 300 B.C.
Gravitation, law of: Sir Isaac Newton, 1687.
Helium on sun: Sir Joseph Lockyer, 1868.
Heredity, laws of: Gregor Mendel, 1865.
Induction, electric: Joseph Henry, 1828.
Insulin: Sir Frederick G. Banting and J. J. R. MacLeod, 1922.
Intelligence testing, modern: Alfred Binet and Theodore Simon, 1905.
Isotopes, mass spectra of: Francis W. Aston, 1919.
Isotopes, theory of: Frederick Soddy, 1912.
Light, electromagnetic theory of: James Clerk Maxwell, 1873.
Light, velocity of: Olaus Römer, 1675.
Molecular hypothesis: Amadeo Avogadro, 1811.
Neutron: James Chadwick, 1932.
Ohm's Law: Georg S. Ohm, 1827.
Ozone: Christian Schönbein, 1839.
Penicillin: Sir Alexander Fleming, 1929.
Periodic table: Dmitri Mendeleev, 1869.
Positron: Carl D. Anderson, 1932.
Proton: Ernest Rutherford, 1919.
Psychoanalysis: Sigmund Freud, c.1904.
Quantum mechanics: Werner Heisenberg, 1925.
Quantum theory: Max von Planck, 1901.
Rabies preventive: Louis Pasteur, 1885.
Radioactivity: Antoine Becquerel, 1896.
Radioactivity, artificial: Frédéric and Irène Joliot–Curie, 1934.
Relativity, theories of; Albert Einstein, 1905–50.
Schick test of susceptibility to diphtheria: Béla Schick, 1913.
Secretin, isolation of: Sir William Bayliss and Ernest Starling, 1902.
Soda manufacture from salt: Ernest Solvay, 1861.
Solar system, heliocentricity of: Nicolaus Copernicus, 1530. (Also Aristarchus of Samos, 3rd century B.C.)
Spectrum analysis: Robert Bunsen and Gustav Kirchhoff, 1859.
Sulfa drugs as bactericides: Gerhard Domagk, 1932.
Surgery, antiseptic: Sir Joseph Lister, 1867.
Tuberculosis bacillus: Robert Koch, 1882.
Vaccination: Edward Jenner, 1796.
Virus, crystalized: Wendell M. Stanley, 1935.
Vitamin A: Elmer V. McCollum, 1912–14.
Vitamin B: Elmer V. McCollum, 1915–16.
Vitamin C: A. Holst, 1912.
Vitamin D: Elmer V. McCollum, 1922.
Vitamin D, irradiated: Harry Steenbock, 1924.
Wassermann test for syphilis: August von Wassermann, 1906.
Water, synthesis of: Henry Cavendish, 1781.
Wilson Cloud Chamber: Charles T. R. Wilson, 1911.
X-rays: Wilhelm Roentgen, 1895.

The Races of Mankind

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Classification of Man into groups called "races" rests upon the basic fact that all peoples belong to the same genus and species, *Homo sapiens*. This is important to keep in mind, for it implies that all peoples are much more alike than different.

Scientists classify Man by using a number of physical traits, most of them based upon observation rather than upon precise measurement. Examples of these are stature and head-form (determined by a breadth/length ratio), skin color, hair color, form and texture, eye color, nose shape, mouth form, shape of face with special reference to cheekbones. Other criteria, such as arm and leg proportions, are more specialized. Two things are noteworthy here: (1) most of the physical traits are external; (2) physical traits are so variable that a single trait has virtually no diagnostic value.

We may define a *race*, simply, as a subgroup of Mankind more or less set apart by a combination of physical traits.

There are three, possibly four, great aggregates of races, usually called *stocks:* Caucasoid, Mongoloid, Negroid, and Archaic Caucasoid (or Australoid). The first three are often referred to as "White," "Yellow," and "Black." This is not really correct; peoples of North-Central India are Caucasoids, yet their skin color is brown to dark brown; certain tribes of Northeast Africa are Negroids, yet their skin color is light brown to brown. Variability also may be seen in stature: the tallest people in the world are found in Denmark and the Scottish Highlands, in East Africa, and in southernmost South America—respectively Caucasoid, Negroid, and Mongoloid. It must be re-emphasized that not one or two traits, but an aggregate of traits, of genetic origin, provides the only valid method of setting up stock or racial classification.

Caucasoids are the peoples of Europe, the adjacent shores of North Africa, and of Asia Minor and the northern half of India. The following races belong to the Caucasoid stock: Nordic, or Northwest European, Alpine or Central European, Mediterranean or Southwest European, Baltic or Northeast European, Dinaric or Southeast European, Armenoid in western Asia Minor, and Indio (often called Hindu) in North-Central India. These races are not, of course, absolutely limited to those geographical areas. For example, the Mediterranean race is found also in North Africa, especially Egypt, and in Asia Minor, where it is represented by the Bedouin Arabs of Arabia. Other Caucasoid peoples are the Magyars, the Finns, and the Lapps, who show traces of Mongoloid mixtures, especially the last.

The Negroids are the peoples of Africa and Oceania, termed respectively the African Negroids and the Oceanic Negroids. The following African Negroid races are commonly recognized: Forest or West African or "True" Negro in West Africa. Sudanic in Central Africa, Nilotic in East Africa, Hamitic in Northeast and North Africa, Bantu (better: Bantu-speaking) in South Africa, and Bushman-Hottentot in the Kalahari Desert of South Africa. The Oceanic Negroids are commonly called Melanesian or Papuan, and are found chiefly in Borneo, New Caledonia, the Solomons, the Hebrides and Fiji.

Of special interest among Negroids are Pygmies, who average about four feet in stature. They are found in Africa in the Congo region, in the Ituri Forest, and in Oceania on the Andaman Islands, the Malay Peninsula, the Philippines, and Borneo.

The Mongoloids are basically the peoples of Asia, but are also in the Western Hemisphere as the American Indians, and are represented in Malaysia and in Oceania. The Mongoloids are usually divided into the following races: Sinic of China and Japan, Palearctic of Siberia, Turkic and Tungic or Mongolic of Central Asia, and Malayan of Malaysia. In the Western Hemisphere they are found as Eskimos and the Indians of the Americas. In Polynesia, f.e., in Samoa, Tonga, Hawaii and west to Easter Island, the Mongoloid stock is a basic element, with some Caucasoid and some Negroid (Melanesian?) admixture.

The Archaic Caucasoids are found in Australia as the Australian aborigines and in Japan as the Ainu. They may possibly be an element in Melanesia and in Ceylon and South India, e.g., the Toda, the Vedda, and other tribes.

This is a brief survey of the "stocks" and "races" of the world. There is much intermixing and some overlapping. This leads to two very important biological observations: (1) *there are no pure races;* (2) *there are no superior or inferior races.* We know from history that all peoples, upon contact, have crossed their genetically based physical traits. We know from human anatomy that in fundamental structure all peoples are identical.

As far as biological Man is concerned, what he is, is related to his cultural environment, rather than to any innate (or inherited) ability or aptitude. There is no "German race," only a German nationality; there is no "Jewish race," only a Jewish socio-religious community; there is no "Aryan race," only an Aryan language; there is no "master race," only a political bombast!

RELIGION

★

Principal Religions of the World

Source: Encyclopaedia Britannica.

Statistics of the world's religions are only very rough approximations. Aside from Christianity, few religions, if any, attempt to keep statistical records; and even Protestants and Catholics employ different methods of counting members. All persons of whatever age who have received baptism in the Catholic Church are counted as members, while in most Protestant Churches only those who "join" the church are numbered. The compiling of statistics is further complicated by the fact that in China one may be at the same time a Confucian, a Taoist and a Buddhist. In Japan, one may be both a Buddhist and a Shintoist.

Religion	North America	South America	Europe	Asia[1]	Africa	Oceania[2]	Total
Christian—Total	128,467,527	91,677,138	441,383,109	25,374,305	28,911,430	26,171,973	741,985,482
Roman Catholic	74,561,995	89,412,040	215,363,295	8,857,842	14,194,448	18,951,231	421,340,901
Eastern Orthodox	1,208,157	.....	112,447,669	8,106,071	5,868,089	.....	127,629,986
Protestant	52,697,375	2,265,098	113,572,145	8,410,392	8,848,893	7,220,692	193,014,595
Jewish[3]	5,185,000	597,850	3,505,800[4]	1,247,200	723,500	44,000	11,303,350
Mohammedan	32,600	139,156	3,866,000	251,227,347	60,359,000	75,000	315,699,103
Zoroastrian	.....	.....	.....	124,890	.....	.....	124,890
Shinto	.....	.....	.....	25,000,000	.....	.....	25,000,000
Taoist	15,000	17,000	12,000	50,000,000	1,200	8,000	50,053,200
Confucian	85,000	95,000	50,000	300,000,000	7,500	52,000	300,289,500
Buddhist	165,000	135,000	.....	150,000,000	.....	.....	150,300,000
Hindu	10,000	275,000	.....	255,030,506	300,000	100,000	255,715,506
Primitive	50,000	1,000,000	.....	45,000,000	75,000,000	100,000	121,150,000
Others or none	76,540,873	9,833,856	82,431,031	160,559,752	12,639,370	5,363,027	347,397,969
Grand Total	210,551,000	103,740,000	531,308,000	1,263,564,000	177,942,000	31,914,000	2,319,019,000

[1] Includes Indonesia, but not Philippines. [2] Includes Philippines. [3] Includes all Jews, whether or not members of a synagogue. [4] Includes Asiatic U.S.S.R. and Turkey.

History of Leading Religious Groups in the United States

Source: Yearbook of American Churches and *Christian Herald.*

(Religious bodies listed have memberships of 50,000 or over—53 Protestant bodies and 10 non-Protestant bodies. Memberships shown are for 1950, as published in the August, 1951, issue of *Christian Herald.*)

Baptist

American Baptist Association.—A group of Independent Missionary Baptist Churches, mainly in the South, Southwest and Southeast, organized into an association in 1905. In 1950, some 303 churches with a combined membership of some 60,000 left the American Baptist Association and formed the North American Baptist Association. Members: 240,315.

American Baptist Convention.—The early historical local independency of Baptist churches in America tended to impede the formation of any general organization until in 1814 a General Missionary Convention was formed to permit Baptists to express themselves in terms of missionary activities. In 1845, the state conventions in the South withdrew to organize the Southern Baptist Convention. In 1907, the Northern Baptist Convention was organized, a delegated body under whose direction the many agencies of the Baptists in the North and West now operate. In May, 1950, the name was changed to the American Baptist Convention. Members: 1,561,073.

Free Will Baptists.—A body of Arminian Baptists, organized in 1787 by Benjamin Randall in New Hampshire. Members: 1,561,073.

General Association of Regular Baptist Churches.—A fellowship of those seeking to maintain fundamental Baptist doctrine; ordinances of baptism and Lord's Supper observed. Members: 94,822.

National Baptist Convention, U. S. A., Inc.—The older and parent convention of Negro Baptists. This body is to be distinguished from the National Baptist Convention of America, usually referred to as the "unincorporated" body. The "incorporated" convention is a constituent member of the Federal Council of the Churches of Christ in America. Members: 4,445,605.

National Baptist Convention of America.—This is a body usually referred to as the "unincorporated" convention, not to be confused with the "incorporated" National Baptist Convention, U. S. A., Inc., from which this body withdrew. Organized in 1895. Members: 2,595,789.

National Baptist Evangelical Life and Soul Saving Assembly of U. S. A.—Organized in 1921 by A. A. Banks, Sr., as a chari-

table, educational, and evangelical organization. Members: 56,934.

Primitive Baptists.—A large group of Baptists, largely through the South, who are opposed to all centralization, to modern missionary societies, and to Sunday schools. They are sometimes called "anti-missionary" Baptists. Members: 69,157.

Southern Baptist Convention.—In 1845, Southern Baptists withdrew from the General Missionary Convention over the question of slavery and other matters and formed the Southern Baptist Convention. Members: 7,079,889.

The United American Free Will Baptist Church.—A body which set up its organization in 1901. Though ecclesiastically distinct, they are in close relations with the Free Will Baptists. Members: 75,000.

Catholic and Orthodox

Armenian Apostolic Church.—The American branch of the Ancient Church of Armenia. Established in U. S. in 1889. Diocesan organization under the jurisdiction of the Holy See of Etchmiadzin, Armenia, U.S.S.R. Members: 110,000.

Greek Orthodox Church (Hellenic).—Greek-speaking Orthodox Christians have had scattered parishes in the U. S. for the last seventy years. These were first under the jurisdiction of the Metropolitan of Athens and later under the Patriarchate of Constantinople. Political changes in Europe have been reflected in this country and have brought difficulties in all branches of the Orthodox Church. In 1931, a general convention held in New York City under the presidency of Archbishop Athenagoras brought a large measure of unity and order. Members: 1,000,000.

North American Old Roman Catholic Church.—Identical with the Roman Catholic Church in worship, faith, etc., but differs in discipline. It was received into union with the Eastern Orthodox Church by the Archbishop of Beirut in 1911 and by the Orthodox Patriarch of Alexandria in 1912. Members: 60,000.

Polish National Catholic Church.—After a long period of dissatisfaction with Roman Catholic Administration in many Polish parishes, this group was organized in 1904. Members: 250,000.

The Roman Catholic Church.—The largest single group of Christians in the U. S., the Roman Catholic Church is under the spiritual leadership of Pope Pius XII. This group dates back to the priests who accompanied Columbus on his second voyage to the New World. A settlement, later discontinued, was made at St. Augustine, Fla. The continuous history of this Church in the colonies began at St. Mary's in 1634, in Maryland. Members: 28,470,092.

Russian Orthodox Church.—The Russian Orthodox Church entered Alaska in 1792 before its purchase by the United States. In 1872, its headquarters were moved to San Francisco and in 1905 to New York. Members: 300,000.

U. S. Church Membership, 1949-50

Source: Christian Herald.

Religious groups	1949	1950
Protestant bodies (over 50,000*)	47,108,368	48,470,602
Protestant bodies (10,000–50,000*)	1,267,076	1,289,840
Protestant bodies (under 10,000*)	299,379	323,426
Total Protestant bodies	48,674,823	50,083,868
Roman Catholic	27,610,308†	28,470,092
Jewish Congregations	5,000,000	5,000,000
Other non-Protestant bodies	1,469,162	2,151,320
Total non-Protestant bodies	34,079,470†	35,621,412
Total all bodies in U. S.	82,754,293†	85,705,280

* Members per body. † Revised figure as of end of 1949.

Serbian Orthodox Church.—This body of the Eastern Orthodox Church has its own diocese and is under jurisdiction of the Serbian Patriarchate (Yugoslavia). Members: 80,000.

Lutheran

American Lutheran Church.—This Church is a constituent body of the American Lutheran Conference. It is itself the result of the merger in 1930 of the Evangelical Lutheran Joint Synod of Ohio and Other States (org. 1918), the Evangelical Lutheran Synod of Iowa and Other States (org. 1854), and the Lutheran Synod of Buffalo (org. 1845). Members: 715,640.

Augustana Evangelical Lutheran Church.—This group, whose constituency originally was of Swedish extraction, is a member of the American Lutheran Conference and is also a participating body in the National Lutheran Council. Organized in 1860. Members: 454,742.

Evangelical Lutheran Church.—In 1917 the United Norwegian Church, the Norwegian Synod and the Hauge Synod united under the name, Norwegian Lutheran Church of America. In 1930 this group became a constituent part of the American Lutheran Conference. The new name, The Evangelical Lutheran Church, was adopted at its General Convention in 1946. Members: 825,466.

The Evangelical Lutheran Joint Synod of Wisconsin and Other States.—This group, a constituent part of the Synodical Conference, was organized in Wisconsin in 1850. Members: 307,216.

Lutheran Church-Missouri Synod.—This group, the largest constituent part of the Synodical Conference, was organized in 1847, holds to an unwavering confessionalism and is the leader in the conservative group among the Lutherans. Members: 1,674,901.

Lutheran Free Church.—This body was organized in 1897 as the result of differences of opinion in the United Norwegian Church over control of the Augsburg Seminary. It became a constituent part of the American Lutheran Conference in 1930. Members: 59,860.

United Lutheran Church in America.—This group dates back to the Ministerium of Pennsylvania, organized in 1748, and beyond that to early colonial days. It represents the union of the General Synod, the General Council, and the United Synod of the South in 1918. Members: 1,954,342.

Methodist

African Methodist Episcopal Church.—This group was formed in Philadelphia in 1816 and extended throughout the South after the Civil War. Members: 1,166,301.

African Methodist Episcopal Zion Church.—This group was organized in 1796, coming out of the John Street Methodist Church, New York. Members: 588,000.

Colored Methodist Episcopal Church.—In 1870, the General Conference of the M.E. Church, South, approved the request of its colored membership for the formation of their conferences into a separate ecclesiastical body. Members: 381,000.

Free Methodist Church of North America.—This body grew out of a movement in the Genesee of Conference of the Methodist Episcopal Church about 1850 toward a more original Methodism. It was organized in 1860. Members: 50,177.

The Methodist Church.—In April, 1939, the Uniting Conference forming The Methodist Church was held by representatives of the Methodist Episcopal Church, the Methodist Episcopal Church, South, and the Methodist Protestant Church. The Methodist Church in the United States originated with the efforts of John and Charles Wesley, leaders of the revival movement in England in the eighteenth century. Methodist emigrants from Ireland planted Methodism in America about 1760. In 1771 Francis Asbury, one of Wesley's preachers, later a Bishop, landed in Philadelphia. The Methodist Episcopal Church was organized in 1784–85. The Methodist Episcopal Church, South, dated from 1846, the separation from the Methodist Episcopal Church having taken place over the slavery issue. The Methodist Protestant Church dated from 1830, and was organized over the issue of lay representation. Members: 8,935,647.

Presbyterian

Cumberland Presbyterian Church.—In 1806, a presbytery (Cumberland) of the Presbyterian Church was dissolved by the Synod of Kentucky on account of its attitude toward revivalism. Members of the presbytery organized as an independent body in 1810 and became the Cumberland Presbyterian Church. When this body attempted to reunite with the Presbyterian Church in 1906, a minority preferred to continue as an independent church as above. Members: 80,140.

Presbyterian Church in the U. S.—This group is the branch of the Presbyterian Church which separated from the main body at the time of the Civil War. It is often called the "Southern" Presbyterian Church. Members: 702,210.

Presbyterian Church in the United States of America.—This group, distinguished by its representative form of government and its Calvinistic theology, appeared among the earliest colonists of America. Its first church was established about 1640, its first presbytery in 1706. Members: 2,448,596.

United Presbyterian Church of North America.—This group dates back to the Reformed Presbyterian (Covenanter) Church (1643) and the Associate Presbyterian (Seceder) Church (1733), both of Scotland. These two groups appeared in America in 1774 and 1753 respectively. They united and became the Associate Reformed Presbyterian Church in 1782. A minority, however, continued as the Associate Presbyterian Church. In 1858 the two groups united and became the United Presbyterian Church. Members: 213,810.

Others

Assemblies of God.—Independent, pentecostal, evangelical, missionary churches associated for co-operative effort in district and general councils. Organized in Arkansas in 1914. Members: 318,478.

Buddhist Churches of America.—Organized in 1914 as the Buddhist Mission of North America, this group was incorporated in 1942 under the present name and represents Buddhism in this country, the faith based on "the anatman doctrine, supplemented by the idea of karma, and nirvana, the holy ease or a blissful mental state of absolute freedom from evil." Members: 70,000.

Christian Reformed Church.—A group of Dutch Calvinists which dissented from the Reformed Church in America in 1857 and which was strengthened by later accessions from the same source and by immigration. Members: 154,950.

Church of Christ, Scientist.—Founded by Mary Baker Eddy in 1879. As defined by Mrs. Eddy, Christian Science is the scientific system of divine healing and the reinstatement of primitive Christianity. Number of churches and societies: 3,049.*

Church of God.—This body. to be differentiated from the Church of God with headquarters at Anderson, Ind., is a holi-

*Membership figure not available. The manual of the church forbids "the numbering of people and the reporting of such statistics for publication."

ness group and pentecostal. It began in 1886 in Tennessee, under the name of Christian Union, reorganized in 1902 as the Holiness Church. In 1907 it adopted the name above. Members: 124,372.

Church of God (Anderson, Ind.).—This group is one of the largest of the groups which have taken the name "Church of God." Its headquarters are at Anderson, Ind. It originated about 1880, now emphasizes Christian unity. Members: 107,094.

Church of God in Christ.—Organized in Arkansas in 1895, by C. P. Jones and C. H. Mason, who believed there was no salvation without holiness; incorporated 1897. Members: 316,705.

Church of the Brethren (Conservative Dunkers).—German pietists from Crefeld, Germany, under the leadership of Peter Becker, entered the colonies in 1719, and settled at Germantown, Philadelphia, Pa. They were called Dunkers (baptizers) and were immersionists. The members are conservative as to attire, oaths or affirmations, resistance to force, temperance, and the like. Members: 186,201.

Church of the Nazarene.—One of the larger holiness bodies, organized in Pilot Point, Tex., Oct. 1908. It is in general accord with the early doctrines of Methodism and emphasizes entire sanctification. Members: 226,684.

Churches of Christ.—This body is made up of a large group of churches, formerly reported with the Disciples of Christ, but since the religious census of 1906, reported separately. They are strictly congregational and have no organization larger than the local congregation. Members: 903,000.

Congregational Christian Churches.—Congregational churches date back to the Pilgrim Fathers and the early colonists of New England in 1620. The Christian churches date back to the Wesleyan and revival movements at the end of the eighteenth century. These two groups of churches were merged at Seattle, Wash., in 1931. Members: 1,190,131.

Disciples of Christ.—In the revival period of the early nineteenth century, a movement under Thomas Campbell and his son, Alexander, resulted in the establishment of a fellowship called Christians or Disciples. Believing that sects are unscriptural, they are biblicalists and immersionists. Members: 1,767,964.

Evangelical and Reformed Church.—This body was formed on June 26, 1934, at Cleveland, Ohio, by a union of the Evangelical Synod of North America and the Reformed Church in the United States. The union was unique in that it left all details to be adjusted afterwards. The constitution was declared in effect at the General Synod which met at Lancaster, Pa., in June, 1940. The merged boards were organized and on February 1, 1941, took over the work of the two former denominations. Members: 726,361.

Evangelical Mission Covenant Church of America.—A transplantation to the U. S., in 1885, of a free-church movement in the Swedish state church. Until recently the name has been the Swedish Evangelical Mission Covenant. Members: 51,264.

The Evangelical United Brethren Church.—This group had its origin in Johnstown, Pa., November 16, 1946, in the consummation of organic union between the Evangelical Church and the Church of the United Brethren in Christ. Both these former communions had their beginning in Pennsylvania in the evangelistic movement of the early 19th century. Jacob Albright was the founder of the Evangelical Church, and Dr. Philip William Otterbein was the founder of the United Brethren Church in 1800. In doctrine this Church is Arminian and in government Methodistic. Members: 717,531.

Federated Churches.—Actually not a denomination but a group of local churches in various parts of the country, federated under the above name. Members: 88,411.

Religious Society of Friends (Five Years Meeting).—The Five Years Meeting of Friends was formed in 1902 by 13 Yearly Meetings entering into a loose confederation. Since then, two of the original Yearly Meetings have withdrawn (Kansas and Oregon) and three Yearly Meetings outside the U. S. have joined. Members: 112,805.

Independent Fundamental Churches of America.—Organized in 1930, at Cicero, Ill., by representatives of various independent churches. Members: 65,000.

International Church of the Four Square Gospel.—An evangelistic missionary body organized by Aimee Semple McPherson in 1927. The parent church is Angelus Temple in Los Angeles, organized in 1923, with many branch churches in the U. S. and mission stations in foreign countries. Members: 59,984.

Jewish Congregations.—Jews arrived in the colonies before 1650. The first congregation is recorded in 1656, in New York City, the Shearth Israel (Remnant of Israel). Members: 5,000,000.

Latter-Day Saints, Church of Jesus Christ of.—A group in which the Bible, the Book of Mormon, the Doctrine and Covenants and the Pearl of Great Price are regarded as the word of God. The primitive church organization is sought and the same gifts of tongues, prophecy, revelation, visions, healings and interpretation of tongues are continued. Members: 1,005,346.

Latter-Day Saints, Reorganized Church of Jesus Christ of.—A division among the Latter-Day Saints (Mormons) occurred on the death of Joseph Smith in 1844. His son,

Joseph Smith, became presiding officer of this group, which has headquarters at Independence, Mo. Members: 124,925.

Mennonite Church.—The largest group of the Mennonites who began arriving in the U. S. in 1683, settling in Germantown, Pa. They derive their name from Menno Simons, their outstanding leader, born 1496. Members: 58,330.

The Protestant Episcopal Church.—This group entered the colonies with the earliest settlers as the Church of England. It became autonomous and adopted its present name in 1789. Members: 2,346,319.

Reformed Church in America.—This group was established by the earliest Dutch settlers of New York as the Reformed Protestant Dutch Church in 1628. It embraces many of the historic early colonial churches of New York and New Jersey and today has many strong churches in the middle and far west. Members: 183,178.

The Salvation Army.—An evangelistic organization, with a military government, first set up by General William Booth (1829–1912) in England and introduced into America in 1880. Members: 227,008.

Seventh Day Adventists.—This body developed out of the Adventist movement (1833–1844), which emphasized the imminent personal return of Jesus Christ. It emphasized the observance of the seventh-day Sabbath and in 1863 was numerous enough to organize a conference. The denomination carries on extensive evangelistic, publishing, medical and educational work. Members: 237,168.

Spiritualists, International General Assembly of.—Organized in Buffalo, N. Y., in 1936 for the purpose of chartering Spiritualist churches. Members: 157,000.

Unitarian Association, American.*—The Unitarian movement in Congregationalism, beginning in the eighteenth century, produced the American Unitarian Association in 1825. In 1865 a national conference was organized. Members: 75,389.

The Universalist Church of America.*—Originated in the U. S. about 1785. In 1866, it was incorporated as the Universalist General Convention; but in 1942, the present name was adopted. Members: 64,245.

* In 1951 it was announced that a federation above the parish level is contemplated for the eventual merger of the Unitarian and Universalist churches.

History of the Christian Church in England

304(?) St. Alban martyred.
400(?) Ninian founds church in Scotland.
432(?) St. Patrick begins conversion of Ireland.
5th century Arrival in England of Angles, Saxons and Jutes. Church isolated from Rome.
597 Augustine sent to convert Saxons.
601 Augustine made Archbishop by Pope.
1170 Murder of Archbishop Becket.
1172 Becket is canonized.
1534 Act of Supremacy makes king head of Church of England.
1554 Church again united with Rome under reign of Mary.
1558 Church restored to Crown at accession of Elizabeth.
1611 King James Version published.
1646 Puritan rebellion. Presbyterianism becomes state religion.
1660 Restoration. Power of Church of England restored under Charles II.
1673 Test Act passed by Parliament. Excludes noncomformists and Roman Catholics from public office.
1701 Act of Succession. Sovereigns must belong to Church of England.
1739 John Wesley founds Methodism.
1828 Repeal of Test Act.
1829 Catholic emancipation.
1833–45 Oxford Movement attempts to bring Church of England closer to ideals of ancient Church. Despite conversion of Newman, and others to Roman Catholicism, this movement continues as important influence in present-day Church of England.

Archbishops of Canterbury

Sequence	Name	Year created
1	Augustine (consecrated Bishop 597)	601
2	Laurentius	604
3	Mellitus	619
4	Justus	624
5	Honorius	627
6	Deusdedit	655
7	Theodorus	668
8	Beorhtweald	693
9	Tatwine	731
10	Nothelm	735
11	Cuthbeorht	740
12	Breguwine	761
13	Jaenbeorht	765
14	Æthelheard	793
15	Wulfred	805
16	Feologild	832
17	Ceolnoth	833
18	Æthelred	870
19	Plegmund	890
20	Æthelhelm	914
21	Wulfhelm	923
22	Oda	942
23	Ælfsige	959
24	Beorhthelm	959

Sequence	Name	Year created
25	Dunstan	960
26	Æthelgar	988
27	Sigeric Serio	990
28	Ælfric	995
29	Ælfheah	1005
30	Lyfing	1013
31	Æthelnoth	1020
32	Eadsige	1038
33	Robert (Champart) of Jumièges	1051
34	Stigand	1052
35	Lanfranc	1070
36	Anselm	1093
37	Ralph d'Escures	1114
38	William de Corbeil	1123
39	Theobald	1139
40	Thomas Becket	1162
41	Richard (of Dover)	1174
42	Baldwin	1185
43	Hubert Walter	1193
44	Stephen Langton	1207
45	Richard le Grant (of Wetharshed)	1229
46	Edmund Rich	1234
47	Boniface of Savoy	1245
48	Robert Kilwardby	1273
49	John Pecham (Peckham)	1279
50	Robert Winchelsey	1294
51	Walter Reynolds	1313
52	Simon Mepeham	1328
53	John Stratford	1333
54	Thomas Bradwardine	1349
55	Simon Islip	1349
56	Simon Langham	1366
57	William Whittlesey	1368
58	Simon Sudbury	1375
59	William Courtenay	1381
60	Thomas Arundel	1396
61	Roger Walden	1398
62	Thomas Arundel (restored)	1399
63	Henry Chichele	1414
64	John Stafford	1443
65	John Kemp	1452
66	Thomas Bourchier	1454
67	John Morton	1486
68	Henry Dean	1501
69	William Warham	1503
70	Thomas Cranmer	1533
71	Reginald Pole	1556
72	Matthew Parker	1559
73	Edmund Grindal	1576
74	John Whitgift	1583
75	Richard Bancroft	1604
76	George Abbot	1611
77	William Laud	1633
78	William Juxon	1660
79	Gilbert Sheldon	1663
80	William Sancroft	1678
81	John Tillotson	1691
82	Thomas Tenison	1695
83	William Wake	1716
84	John Potter	1737
85	Thomas Herring	1747
86	Matthew Hutton	1757
87	Thomas Secker	1758
88	Frederick Cornwallis	1768
89	John Moore	1783
90	Charles Manners-Sutton	1805
91	William Howley	1828
92	John Bird Sumner	1848
93	Charles Thomas Longley	1862
94	Archibald Campbell Tait	1868
95	Edward White Benson	1883
96	Frederick Temple	1896
97	Randall Thomas Davidson	1903
98	Cosmo Gordon Lang	1928
99	William Temple	1942
100	Geoffrey Francis Fisher	1945

Bishops of the Protestant Episcopal Church

Source: John H. Fitzgerald, Secretary, The House of Bishops, 7301 Ridge Blvd., Brooklyn 9, N. Y.

(Note: M—Missionary Bishop; C—Coadjutor; S—Suffragan)

Presiding Bishop: Henry K. Sherrill, New York City. Vice President of National Council: John B. Bentley, New York City.

Alabama: Charles C. J. Carpenter, Randolph R. Claiborne (S), Birmingham.
Alaska: William J. Gordon (M), Nenana.
Albany (N. Y.): Frederick L. Barry, David E. Richards (S).
Anking: (Vacant).
Arizona: Arthur B. Kinsolving, II (M), Phoenix.
Arkansas: R. Bland Mitchell, Little Rock.
Atlanta (Ga.): (Vacant).
Bethlehem (Pa.): Frank W. Sterrett.
Brazil, Central: Louis C. Melcher (M).
Brazil, Southern: Athalico T. Pithan, Porto Alegre.
Brazil, Southwestern: Egmont M. Krischke, Santa Maria.
California: Karl M. Block, San Francisco.
Chicago: Wallace E. Conkling, Charles L. Street (S).
Colorado: Harold L. Bowen, Denver.
Connecticut: Walter H. Gray, Robert McC. Hatch (S), Hartford.
Cuba: Alexander H. Blankingship (M), Havana.
Dallas (Tex.): C. Avery Mason, Gerald F. Burrill (S).
Delaware: Arthur R. McKinstry, Wilmington.
Easton (Md.): Allen J. Miller.
Eau Claire (Wis.): William W. Horstick.
Erie (Pa.): Harold E. Sawyer.
European Churches: J. I. B. Larned, Brooklyn, N. Y.
Florida: Frank A. Juhan, Hamilton West (C), Jacksonville.
Florida, South: Henry I. Louttit, Martin J. Bram (S), Orlando.
Fond du Lac (Wis.): Harwood Sturtevant.
Georgia: Middelton S. Barnwell, Savannah.
Haiti: C. A. Voegeli (M), Port-au-Prince.

Harrisburg (Pa.): J. Thomas Heistand.
Honolulu: Harry S. Kennedy (M).
Idaho: Frank A. Rhea (M), Boise.
Indiana, Northern: Reginald Mallett, South Bend.
Indianapolis: Richard A. Kirchhoffer.
Iowa: Gordon V. Smith, Des Moines.
Kansas: Goodrich R. Fenner, Topeka.
Kentucky: Charles Clingman, Louisville.
Lexington (Ky.): William R. Moody.
Liberia: Bravid W. Harris (M), Monrovia.
Long Island: James P. DeWolfe, Jonathan G. Sherman (S), Garden City, N. Y.
Los Angeles: Francis E. I. Bloy, Donald J. Campbell (S).
Louisiana: Girault M. Jones, New Orleans.
Maine: Oliver L. Loring, Portland.
Maryland: Noble C. Powell, Baltimore.
Massachusetts: Norman B. Nash, Raymond A. Heron (S), Boston.
Massachusetts, Western: William A. Lawrence, Springfield.
Mexico: Efraín Salinas y Velasco (M), Mexico City.
Michigan: Richard S. M. Emrich, Russell S. Hubbard (S), Detroit.
Michigan, Northern: Herman R. Page, Marquette.
Michigan, Western: Lewis B. Whittemore, Grand Rapids.
Milwaukee: Benjamin F. P. Ivins.
Minnesota: Stephen Keeler, Minneapolis.
Mississippi: Duncan M. Gray, Jackson.
Missouri: William Scarlett, Arthur C. Lichtenberger (C), St. Louis.
Missouri, West: Edward R. Welles, Kansas City.
Montana: Henry H. Daniels, Helena.
Nebraska: Howard R. Brinker, Omaha.
Nevada: William F. Lewis (M), Reno.
Newark (N. J.): Benjamin M. Washburn, Theodore R. Ludlow (S).
New Hampshire: Charles F. Hall, Concord.
New Jersey: Wallace J. Gardner, Alfred L. Banyard (S), Trenton.
New Mexico and Southwest Texas: James M. Stoney, Albuquerque, N. M.
New York: W. B. Donegan, Charles F. Boynton (S), New York City.
New York, Central: Malcolm E. Peabody, Walter M. Higley (S), Syracuse.
New York, Western: Lauriston L. Scaife, Buffalo.
North Carolina: Edwin A. Penick, Richard H. Baker (C), Raleigh.
(North) Carolina, East: Thomas H. Wright, Wilmington.
North Carolina, Western: M. George Henry, Asheville.
North Dakota: Richard R. Emery (M), Fargo.
Ohio: Beverly D. Tucker, Nelson M. Burroughs (C), Cleveland.
Ohio, Southern: Henry W. Hobson, Cincinnati.
Oklahoma: Thomas Casady, Oklahoma City.
Olympia (Wash.): Stephen F. Bayne, Jr., Seattle.
Oregon: Benjamin D. Dagwell, Portland.
Oregon, Eastern: Lane W. Barton (M), Bend.
Panama Canal Zone: Reginald H. Gooden (M), Ancon.
Pennsylvania: Oliver J. Hart, William P. Remington (S), Joseph G. Armstrong (S), Philadelphia.
Philippines: Norman S. Binsted (M), Robert F. Wilner (S), Manila.
Pittsburgh: Austin Pardue.
Puerto Rico: Albert E. Swift (M).
Quincy (Ill.): William L. Essex, Peoria.
Rhode Island: Granville G. Bennett, Providence
Rochester (N. Y.): Dudley S. Stark.
Sacramento (Calif.): A. W. Noel Porter.
Salina (Kans.): Shirley H. Nichols (M).
San Joaquin (Calif.): Sumner F. D. Walters (M), Stockton.
South Carolina: Thomas N. Carruthers, Charleston.
South Carolina, Upper: John J. Gravatt, Columbia.
South Dakota: W. Blair Roberts (M), Conrad H. Gesner (C), Sioux Falls.
Spokane (Wash.): Edward M. Cross (M).
Springfield (Ill.): Charles A. Clough.
Tennessee: Edmund P. Dandridge, Nashville; Theodore N. Barth (C), Memphis.
Texas: Clinton S. Quin, Houston; John E. Hines (C), Austin.
Texas, North: George H. Quarterman (M), Amarillo.
Texas, West: Everett H. Jones, San Antonio.
Utah: Richard S. Watson (M), Salt Lake City.
Vermont: Vedder Van Dyck, Burlington.
Virginia: Frederick D. Goodwin, Robert F. Gibson (S), Richmond.
Virginia, Southern: George P. Gunn, Norfolk.
Virginia, Southwestern: Henry D. Phillips, Roanoke.
Washington (D. C.): Angus Dun.
West Virginia: Robert E. L. Strider, Wilburn C. Campbell (C), Charleston.
Wyoming: James W. Hunter, Laramie.

Bishops of the Methodist Church

Source: Methodist Church Headquarters, New York City.

Raymond L. Archer; Singapore, Malaya.
Theodore Arvidson; Stockholm, Sweden.
James C. Baker; Los Angeles, Calif.
Enrique C. Balloch; Santiago, Chile.
Sante Uberto Barbieri; Buenos Aires, Argentina.
Newell S. Booth; Elisabethville, Bel. Congo.
J. W. E. Bowen; Atlanta, Ga.
Charles W. Brashares; Des Moines, Iowa.
Robert N. Brooks; New Orleans, La.
W. Y. Chen; China.
Fred P. Corson; Philadelphia, Pa.

Ralph S. Cushman; St. Paul, Minn.
Dana Dawson; Topeka, Kans.
Charles W. Flint; Washington, D. C.
Marvin A. Franklin; Jackson, Miss.
Paul N. Garber; Richmond, Va.
Costen J. Harrell; Charlotte, N. C.
Ivan Lee Holt; St. Louis, Mo.
Z. T. Kaung; Peiping, China.
Edward W. Kelly; St. Louis, Mo.
Gerald H. Kennedy; Portland, Oreg.
Paul B. Kern; Nashville, Tenn.
Willis J. King; Monrovia, Liberia.
Carleton Lacy; Boston, Mass.
W. E. Ledden; Syracuse, N. Y.
John Wesley Lord; Boston, Mass.
J. Ralph Magee; Chicago, Ill.
Paul E. Martin; Little Rock, Ark.
W. C. Martin; Dallas, Tex.
Shot K. Mondol; Hyderabad, India.
Arthur J. Moore; Atlanta, Ga.
H. Clifford Northcott; Madison, Wis.
G. Bromley Oxnam; New York, N. Y.
W. W. Peele, Laurinburg, N. C.
Glenn R. Phillips; Denver, Colo.
J. Waskom Pickett; Delhi, India.
Clare Purcell; Birmingham, Ala.
Richard C. Raines; Indianapolis, Ind.
Marshall R. Reed; Detroit, Mich.
Clement D. Rockey; Lucknow, India.
Alexander P. Shaw; Baltimore, Md.
Roy H. Short; Jacksonville, Fla.
A. Frank Smith; Houston, Tex.
W. Angie Smith; Oklahoma City, Okla.
J. W. E. Sommer; Frankfurt am Main, Germany.
John A. Subhan; Bombay, India.
Donald H. Tippett; San Francisco, Calif.
José Valencia; Manila, Philippines.
Ralph A. Ward; Hendersonville, N. C.
William T. Watkins; Louisville, Ky.
Hazen G. Werner; Columbus, Ohio.
Lloyd C. Wicke; Pittsburgh, Pa.

Roman Catholic Pontiffs

Source for Catholic information: The National Catholic Almanac.

St. Peter, of Bethsaida in Galilee, Prince of the Apostles, was the first Pope. He resided first in Antioch and then for twenty-five years in Rome, where he suffered martyrdom in 64 or 67 of the modern era. He was followed by St. Linus.

Name	Birthplace	Acces.	End of reign
St. Linus	Tuscia	67	73
St. Anacletus (Cletus)	Rome	76	88
St. Clement	Rome	88	97
St. Evaristus	Greece	97	105
St. Alexander I	Rome	105	115
St. Sixtus I	Rome	115	125
St. Telesphorus	Greece	125	136
St. Hyginus	Greece	136	140
St. Pius I	Aquileia	140	155
St. Anicetus	Syria	155	166
St. Soter	Campania	166	175
St. Eleutherius	Epirus	175	189
St. Victor I	Africa	189	199
St. Zephyrinus	Rome	199	217
St. Callistus I	Rome	217	222
St. Urban I	Rome	222	230
St. Pontian	Rome	230	235
St. Anterus	Greece	235	236
St. Fabian	Rome	236	250
St. Cornelius	Rome	251	253
St. Lucius I	Rome	253	254
St. Stephen I	Rome	254	257
St. Sixtus II	Greece	257	258
St. Dionysius	Unknown	259	268
St. Felix I	Rome	269	274
St. Eutychian	Luni	275	283
St. Caius	Dalmatia	283	296
St. Marcellinus	Rome	296	304
St. Marcellus I	Rome	308	309
St. Eusebius	Greece	309	309
St. Melchiades	Africa	311	314
St. Sylvester I	Rome	314	335
St. Marcus	Rome	336	336
St. Julius I	Rome	337	352
St. Liberius	Rome	352	366
St. Damasus I	Spain	366	384
St. Siricius	Rome	384	399
St. Anastasius I	Rome	399	401
St. Innocent I	Albano	401	417
St. Zozimus	Greece	417	418
St. Boniface I	Rome	418	422
St. Celestine I	Campania	422	432
St. Sixtus III	Rome	432	440
St. Leo I (the Great)	Tuscia	440	461
St. Hilary	Sardo	461	468
St. Simplicius	Tivoli	468	483
St. Felix III (II)	Rome	483	492
St. Gelasius I	Africa	492	496
Anastasius II	Rome	496	498
St. Symmachus	Sardo	498	514
St. Hormisdas	Frosinone	514	523
St. John I	Tuscia	523	526
St. Felix IV (III)	Sannio	526	530
Boniface II	Rome	530	532
John II	Rome	533	535
St. Agapitus I	Rome	535	536
St. Silverius	Campania	536	537
Vigilius	Rome	537	555
Pelagius I	Rome	556	561
John III	Rome	561	574
Benedict I	Rome	575	579
Pelagius II	Rome	579	590
St. Gregory I (the Great)	Rome	590	604
Sabinianus	Tuscia	604	606
Boniface III	Rome	607	607
St. Boniface IV	Marsi	608	615
St. Deusdedit (Adeodatus I)	Rome	615	618
Boniface V	Naples	619	625
Honorius I	Campania	625	638
Severinus	Rome	640	640
John IV	Dalmatia	640	642
Theodore I	Greece	642	649
St. Martin I	Todi	649	655
St. Eugenius I	Rome	654	657
St. Vitalian	Segni	657	672
Adeodatus II	Rome	672	676

Name	Birthplace	Acces.	End of reign
Donus	Rome	676	678
St. Agatho	Sicily	678	681
St. Leo II	Sicily	682	683
St. Benedict II	Rome	684	685
John V	Syria	685	686
Conon	Unknown	686	687
St. Sergius I	Syria	687	701
John VI	Greece	701	705
John VII	Greece	705	707
Sisinnius	Syria	708	708
Constantine	Syria	708	715
St. Gregory II	Rome	715	731
St. Gregory III	Syria	731	741
St. Zachary	Greece	741	752
Stephen II	Rome	752	752
Stephen III	Rome	752	757
St. Paul I	Rome	757	767
Stephen IV	Sicily	768	772
Adrian I	Rome	772	795
St. Leo III	Rome	795	816
Stephen V	Rome	816	817
St. Paschal I	Rome	817	824
Eugenius II	Rome	824	827
Valentine	Rome	827	827
Gregory IV	Rome	827	844
Sergius II	Rome	844	847
St. Leo IV	Rome	847	855
Benedict III	Rome	855	858
St. Nicholas	Rome	858	867
Adrian II	Rome	867	872
John VIII	Rome	872	882
Marinus I	Gallese	882	884
St. Adrian III	Rome	884	885
Stephen VI	Rome	885	891
Formosus	Portus	891	896
Boniface VI	Rome	896	896
Stephen VII	Rome	896	897
Romanus	Gallese	897	897
Theodore II	Rome	897	897
John IX	Tivoli	898	900
Benedict IV	Rome	900	903
Leo V	Ardea	903	903
Sergius III	Rome	904	911
Anastasius III	Rome	911	913
Landus	Sabina	913	914
John X	Tossignano	914	928
Leo VI	Rome	928	928
Stephen VIII	Rome	928	931
John XI	Rome	931	935
Leo VII	Rome	936	939
Stephen IX	Rome	939	942
Marinus II	Rome	942	946
Agapitus II	Rome	946	955
John XII	Tusculum	955	964
Leo VIII	Rome	963	965
Benedict V	Rome	964	966
John XIII	Rome	965	972
Benedict VI	Rome	973	974
Benedict VII	Rome	974	983
John XIV	Pavia	983	984
John XV	Rome	985	996
Gregory V	Saxony	996	999
Sylvester II	Alvernia	999	1003
John XVII	Rome	1003	1003
John XVIII	Rome	1004	1009
Sergius IV	Rome	1009	1012
Benedict VIII	Tusculum	1012	1024
John XIX	Tusculum	1024	1032
Benedict IX*	Tusculum	1032	1044
Sylvester III	Rome	1045	1045
Benedict IX (2nd time)	....	1045	1045
Gregory VI	Rome	1045	1046
Clement II	Saxony	1046	1047
Benedict IX (3rd time)	....	1047	1048
Damasus II	Bavaria	1048	1048
St. Leo IX	Egisheim-Dagsburg	1049	1054
Victor II	Dollnstein-Hirschberg	1055	1057
Stephen X	Lorraine	1057	1058
Nicholas II	Burgundy	1059	1061
Alexander II	Milan	1061	1073
St. Gregory VII	Tuscia	1073	1085
Bl. Victor III	Benevento	1086	1087
Bl. Urban II	France	1088	1099
Paschal II	Ravenna	1099	1118
Gelasius II	Gaeta	1118	1119
Callistus II	Burgundy	1119	1124
Honorius II	Fiagnano	1124	1130
Innocent II	Rome	1130	1143
Celestine II	Città di Castello	1143	1144
Lucius II	Bologna	1144	1145
Bl. Eugene III	Pisa	1145	1153
Anastasius IV	Rome	1153	1154
Adrian IV	England	1154	1159
Alexander III	Siena	1159	1181
Lucius III	Lucca	1181	1185
Urban III	Milan	1185	1187
Gregory VIII	Benevento	1187	1187
Clement III	Rome	1187	1191
Celestine III	Rome	1191	1198
Innocent III	Anagni	1198	1216
Honorius III	Rome	1216	1227
Gregory IX	Anagni	1227	1241
Celestine IV	Milan	1241	1241
Innocent IV	Genoa	1243	1254
Alexander IV	Anagni	1254	1261
Urban IV	Troyes	1261	1264
Clement IV	France	1265	1268
Bl. Gregory X	Piacenza	1271	1276
Bl. Innocent V	Savoy	1276	1276
Adrian V	Genoa	1276	1276
John XXI	Portugal	1276	1277
Nicholas III	Rome	1277	1280
Martin IV	France	1281	1285
Honorius IV	Rome	1285	1287
Nicholas IV	Ascoli	1288	1292
St. Celestine V	Isernia	1294	1294
Boniface VIII	Anagni	1294	1303
Bl. Benedict XI	Treviso	1303	1304
Clement V	France	1305	1314
John XXII	Cahors	1316	1334
Benedict XII	France	1334	1342
Clement VI	France	1342	1352
Innocent VI	France	1352	1362
Bl. Urban V	France	1362	1370
Gregory XI	France	1370	1378
Urban VI	Naples	1378	1389
Boniface IX	Naples	1389	1404
Innocent VII	Sulmona	1404	1406
Gregory XII	Venetia	1406	1415
Martin V	Rome	1417	1431
Eugene IV	Venetia	1431	1447
Nicholas V	Sarzana	1447	1455
Callistus III	Valencia	1455	1458
Pius II	Siena	1458	1464
Paul II	Venetia	1464	1471
Sixtus IV	Savona	1471	1484
Innocent VIII	Genoa	1484	1492

* If the triple removal of Benedict IX was not valid, Sylvester III, Gregory VI and Clement II were antipopes.

Name	Birthplace	Acces.	End of reign
Alexander VI	Valencia	1492	1503
Pius III	Siena	1503	1503
Julius II	Savona	1503	1513
Leo X	Florence	1513	1521
Adrian VI	Utrecht	1522	1523
Clement VII	Florence	1523	1534
Paul III	Rome	1534	1549
Julius III	Rome	1550	1555
Marcellus II	Montepulciano	1555	1555
Paul IV	Naples	1555	1559
Pius IV	Milan	1559	1565
St. Pius V	Bosco	1566	1572
Gregory XIII	Bologna	1572	1585
Sixtus V	Grottammare	1585	1590
Urban VII	Rome	1590	1590
Gregory XIV	Cremona	1590	1591
Innocent IX	Bologna	1591	1591
Clement VIII	Florence	1592	1605
Leo XI	Florence	1605	1605
Paul V	Rome	1605	1621
Gregory XV	Bologna	1621	1623
Urban VIII	Florence	1623	1644
Innocent X	Rome	1644	1655
Alexander VII	Siena	1655	1667
Clement IX	Pistoia	1667	1669
Clement X	Rome	1670	1676
Innocent XI	Como	1676	1689
Alexander VIII	Venetia	1689	1691
Innocent XII	Naples	1691	1700
Clement XI	Urbino	1700	1721
Innocent XIII	Rome	1721	1724
Benedict XIII	Rome	1724	1730
Clement XII	Florence	1730	1740
Benedict XIV	Bologna	1740	1758
Clement XIII	Venetia	1758	1769
Clement XIV	Rimini	1769	1774
Pius VI	Cesena	1775	1799
Pius VII	Cesena	1800	1823
Leo XII	Fabriano	1823	1829
Pius VIII	Cingoli	1829	1830
Gregory XVI	Belluno	1831	1846
Pius IX	Senigallia	1846	1878
Leo XIII	Carpineto	1878	1903
Pius X	Riese	1903	1914
Benedict XV	Genoa	1914	1922
Pius XI	Desio	1922	1939
Pius XII	Rome	1939	

NOTE: This list of Popes, adapted from the *Annuario Pontificio*, is in accordance with the recent revisions made by Monsignor Mercati, Prefect of the Vatican's archives. All Popes before Sylvester I are listed as martyrs; other martyrs were: St. John I, St. Silverius and St. Martin I. The accession year is that during which the Pope was elected

Antipopes

Antipopes were those who falsely claimed Papal Sovereignty. The dates and, in some cases, Roman numerals after the names account for occasional discrepancies in the succession of the Popes.

Name	Birthplace	Acces.	End of reign
St. Hippolytus	Rome	217	235
Novatian	Rome	251	...
Felix II	Rome	355	365
Ursinus	.....	366	367
Eulalius	.....	418	419
Lawrence	.....	498	501
Dioscorus	Alexandria	530	530
Theodore	.....	...	687
Paschal	.....	...	687
Constantine	Nepi	767	769
Philip	.....	768	768
John	.....	...	844
Anastasius	.....	855	855
Christopher	Rome	903	904
Boniface VII	Rome	974	974
Boniface VII (2nd time)	.....	984	985
John XVI	Rossano	997	998
Gregory	.....	...	1012
Benedict X	Rome	1058	1059
Honorius II	Verona	1061	1072
Clement III	Parma	1080	1100
Theodoric	.....	....	1100
Albert	.....	....	1102
Sylvester IV	Rome	1105	1111
Gregory VIII	France	1118	1121
Celestine II	Rome	....	1124
Anacletus II	Rome	1130	1138
Victor IV	.....	1138	1138
Victor IV*	Montecelic	1159	1164
Paschal III	.....	1164	1168
Callistus III	Arezzo	1168	1178
Innocent III	Sezze	1179	1180
Nicholas V	Corvaro	1328	1330
Clement VII	.....	1378	1394
Benedict XIII	Aragon	1394	1423
Alexander V	Crete	1409	1410
John XXIII	Naples	1410	1415
Felix V	.....	1439	1449

* Did not recognize his predecessor of 1138, who, only two months after claiming the Papacy, submitted to the rightful Pope, Innocent II.

The College of Cardinals

(NOTE: When complete, the College of Cardinals has 70 members, of whom 6 are cardinal bishops, 50 are cardinal priests and 14 are cardinal deacons. At present, there are 54 members, of whom 6 are cardinal bishops, 44 are cardinal priests and 3 are cardinal deacons.)

Cardinal Bishops

Year of creation	Name	Office or dignity	Nationality
1936	Eugene Tisserant	Bishop of Ostia, Porto, and Santa Rufina; Dean of the College of Cardinals; Secretary of the Congregation for the Oriental Church.	French
1937	Giuseppe Pizzardo	Bishop of Albano; Prefect of the Congregation of Seminaries and Universities	Italian

Year of creation	Name	Office or dignity	Nationality
1937	Adeodato Giovanni Piazza, O. C. D.	Bishop of Sabina; Secretary of the Consistorial Congregation	Italian
1946	Clemente Micara	Bishop of Velletri; Vicar General of Rome; Pro-Prefect of the Congregation of Rites	Italian
1946	Benedetto Aloisi Masella	Bishop of Palestrina; Pro-Prefect of the Sacred Congregation of the Sacraments	Italian
		Cardinal Priests	
1916	Alessio Ascalesi	Archbishop of Naples	Italian
1921	Michael von Faulhaber	Archbishop of Munich and Freising	German
1923	Giovanni B. Nasalli-Rocca di Corneliano	Archbishop of Bologna	Italian
1925	Alessandro Verde	Archpriest of Liberian Patriarchal Basilica of St. Mary Major	Italian
1927	Joseph Ernest Van Roey	Archbishop of Malines	Belgian
1927	Pedro Segura y Saenz	Archbishop of Sevilla	Spanish
1929	Ildefonso Schuster, O. S. B.	Archbishop of Milan	Italian
1929	Emanuel Goncalves Cerejeira	Patriarch of Lisbon	Portuguese
1930	Achilles Lienart	Bishop of Lille	French
1933	Pietro Fumasoni-Biondi	Prefect of the Congregation for the Propagation of the Faith	Italian
1933	Federico Tedeschini	Archpriest of Vatican Basilica; Prefect of the Congregation of the Basilica of St. Peter; Apostolic Datary	Italian
1933	Maurilio Fossati	Archbishop of Turin	Italian
1933	Elia dalla Costa	Archbishop of Florence	Italian
1933	Theodore Innitzer	Archbishop of Vienna	Austrian
1935	Ignazio Tappouni	Syrian Patriarch of Antioch	Iraqian
1935	Santiago Copello	Archbishop of Buenos Aires	Argentine
1935	Domenico Jorio	Prefect of the Congregation of the Sacraments	Italian
1935	Massimo Massimi	Prefect of the Supreme Tribunal of the Apostolic Signature; President of the Commission on the Authentic Interpretation of the Code of Canon Law	Italian
1937	Pierre Marie Gerlier	Archbishop of Lyon	French
1946	Gregory Peter XV Agagianian	Patriarch of Cilicia of the Armenias	Transcaucasian
1946	Edward Mooney	Archbishop of Detroit	American
1946	Jules Saliège	Archbishop of Toulouse	French
1946	James McGuigan	Archbishop of Toronto	Canadian
1946	Samuel A. Stritch	Archbishop of Chicago	American
1946	Émile Roques	Archbishop of Rennes	French
1946	Jon De Jong	Archbishop of Utrecht	Dutch
1946	Carlo Carmelo de Vasconcellos Motta	Archbishop of São Paulo	Brazilian
1946	Norman Gilroy	Archbishop of Sydney	Australian
1946	Francis J. Spellman	Archbishop of New York	American
1946	José María Caro Rodríguez	Archbishop of Santiago	Chilean
1946	Teodosio Clemente de Gouveia	Archbishop of Lourenço Marques, Mozambique	Portuguese
1946	Jaime de Barros Camara	Archbishop of Rio de Janeiro	Brazilian
1946	Enrique Pla y Deniel	Archbishop of Toledo and Primate of Spain	Spanish
1946	Manuel Arteaga y Betancourt	Archbishop of Havana	Cuban
1946	Joseph Frings	Archbishop of Cologne	German
1946	Juan Gualberto Guevara	Archbishop of Lima	Peruvian
1946	Bernard Griffin	Archbishop of Westminster	English
1946	Jozsef Mindszenty	Archbishop of Esztergom and Primate of Hungary	Hungarian

Year of creation	Name	Office or dignity	Nationality
1946	Ernesto Ruffini	Archbishop of Palermo	Italian
1946	Antonio Caggiano	Bishop of Rosario	Argentine
1946	Thomas Tien, S. V. D.	Archbishop of Peiping	Chinese
		Cardinal Deacons	
1935	Nicola Canali	Grand Penitentiary; President of the Commission charged with the Administration of Vatican City; Camerlengo of the Sacred College of Cardinals	Italian
1936	Giovanni Mercati	Librarian and Archivist of the Holy Roman Church	Italian
1946	Giuseppe Bruno	Prefect of the Congregation of the Council; Secretary of the Commission on the Authentic Interpretation of the Code of Canon Law	Italian

Roman Catholic Hierarchy of the U. S.

Source: National Catholic Welfare Conference, Washington, D. C.

(Note: A—Auxiliary; C—Coadjutor. Archbishops are shown in boldface type, Bishops in lightface. An Archbishop heading a diocese is called an "Archbishop ad Personam"; i.e., he bears the personal title of Archbishop.

The Apostolic Delegate to the U. S. is Archbishop Amleto Giovanni Cicognani. Though he is not actually a member of the U. S. hierarchy, he is closely connected with it. His office is in Washington, D. C.)

Archdioceses

Baltimore, Md.: **Francis P. Keough**; Lawrence J. Shehan (A).

Boston, Mass.: **Richard J. Cushing**; Eric F. MacKenzie (A); Thos. F. Markham (A).

Chicago, Ill.: **Samuel Cardinal Stritch**; Bernard J. Sheil (A); William D. O'Brien (A); William E. Cousins (A).

Cincinnati, Ohio: **Karl J. Alter.**

Denver, Colo.: **Urban J. Vehr.**

Detroit, Mich.: **Edward Cardinal Mooney**; Allen J. Babcock (A).

Dubuque, Iowa: **Henry P. Rohlman**; **Leo Binz** (C); Loras T. Lane (A).

Indianapolis, Ind.: **Paul C. Schulte.**

Los Angeles, Calif.: **J. Francis A. McIntyre**; Joseph T. McGucken (A); Timothy Manning (A).

Louisville, Ky.: **John A. Floersh.**

Milwaukee, Wis.: **Moses E. Kiley**; Roman R. Atkielski (A).

Newark, N. J.: **Thomas J. Walsh**; James A. McNulty (A).

New Orleans, La.: **Joseph F. Rummel**; L. Abel Caillouet (A).

New York, N. Y.: **Francis Cardinal Spellman**; Stephen J. Donahue (A); Joseph P. Donahue (A); Joseph F. Flannelly (A); Fulton J. Sheen (A).

Omaha, Nebr.: **Gerald T. Bergan.**

Philadelphia, Pa.: (Vacant); Joseph C. McCormick (A).

Portland, Oreg.: **Edward D. Howard.**

St. Louis, Mo.: **Joseph E. Ritter**; John P. Cody (A); Charles H. Helmsing (A).

St. Paul, Minn.: **John G. Murray**; James J. Byrne (A).

San Antonio, Tex.: **Robert E. Lucey.**

San Francisco, Calif.: **John J. Mitty**; Hugh A. Donohoe (A); Merlin J. Guilfoyle (A).

Santa Fe, N. Mex.: **Edwin V. Byrne.**

Seattle, Wash.: **Thomas A. Connolly.**

Washington, D. C.: **Patrick A. O'Boyle**; John M. McNamara (A); Patrick J. McCormick (A).

Dioceses

Alaska (vicariate): **Francis D. Gleeson**, S.J., Vicar Apostolic.

Albany, N. Y.: **Edmund F. Gibbons**; William A. Scully (C).

Alexandria, La.: **Charles P. Greco.**

Altoona, Pa.: **Richard T. Guilfoyle.**

Amarillo, Tex.: **Lawrence J. FitzSimon.**

Austin, Tex.: **Louis J. Reicher.**

Baker City, Oreg.: **Francis P. Leipzig.**

Belleville, Ill.: **Albert R. Zuroweste.**

Bismarck, N. Dak.: **Vincent J. Ryan.**

Boise, Idaho: **Edward J. Kelly.**

Brooklyn, N. Y.: **Thomas E. Molloy**; Raymond A. Kearney (A).

Buffalo, N. Y.: **John F. O'Hara**, C.S.C.; Joseph A. Burke (A).

Burlington, Vt.: **Edward F. Ryan.**

Camden, N. J.: **Bartholomew J. Eustace.**

Charleston, S. C.: **John J. Russell.**

Cheyenne, Wyo.: **Patrick A. McGovern**; Hubert M. Newell (C).

Cleveland, Ohio: **Edward F. Hoban**; Floyd L. Begin (A).

Columbus, Ohio: **Michael J. Ready**; Edward G. Hettinger (A).

Corpus Christi, Tex.: **Mariano S. Garriga.**

Covington, Ky.: **William T. Mulloy.**

Crookston, Minn.: **Francis J. Schenk.**

Dallas, Tex.: **Joseph P. Lynch**; Augustine Danglmayr (A).

Davenport, Iowa: **Ralph L. Hayes.**

Des Moines, Iowa: **Edward C. Daly**, O.P.

Dodge City, Kans.: **John B. Franz.**

Duluth, Minn.: **Thomas A. Welch.**

El Paso, Tex.: **Sidney M. Metzger.**

Erie, Pa.: **John M. Gannon**; Edward P. McManaman (A).

Evansville, Ind.: Henry J. Grimmelsman.
Fall River, Mass.: James L. Connolly.
Fargo, N. Dak.: **Aloysius J. Muench**; Leo F. Dworschak (A).
Fort Wayne, Ind.: John F. Noll; Leo A. Pursley (A).
Gallup, N. M.: Bernard T. Espelage, O.F.M.
Galveston, Tex.: Wendelin J. Nold.
Grand Island, Nebr.: John L. Paschang.
Grand Rapids, Mich.: Francis J. Haas.
Great Falls, Mont.: William J. Condon.
Green Bay, Wis.: Stanislaus V. Bona; John B. Grellinger (A).
Greensburg, Pa.: Hugh L. Lamb.
Guam (vicariate): Apollinaris W. Baumgartner, O.F.M. Cap., Vicar Apostolic.
Harrisburg, Pa.: George L. Leech.
Hartford, Conn.: Henry J. O'Brien.
Helena, Mont.: Joseph M. Gilmore.
Honolulu, Hawaii: James J. Sweeney.
Joliet, Ill.: Martin D. McNamara.
Juneau, Alaska: Robert D. O'Flanagan.
Kansas City, Kans.: Edward J. Hunkeler.
Kansas City, Mo.: Edwin V. O'Hara; Joseph Marling, C.Pp.S. (A).
La Crosse, Wis.: John P. Treacy.
Lafayette, Ind.: John G. Bennett.
Lafayette, La.: Jules B. Jeanmard; Maurice Schexnayder (A).
Lansing, Mich.: Joseph H. Albers.
Lincoln, Nebr.: Louis B. Kucera.
Little Rock, Ark.: Albert L. Fletcher.
Madison, Wis.: William P. O'Connor.
Manchester, N. H.: Matthew F. Brady.
Marquette, Mich.: Thomas L. Noa.
Mobile, Ala.: Thomas J. Toolen.
Monterey-Fresno, Calif.: Philip G. Scher; Aloysius J. Willinger, C.Ss.R. (C).
Nashville, Tenn.: William L. Adrian.
Natchez, Miss.: Richard O. Gerow.
Ogdensburg, N. Y.: Bryan J. McEntegart.
Oklahoma City-Tulsa, Okla.: Eugene J. McGuinness.
Owensboro, Ky.: Francis R. Cotton.
Paterson, N. J.: Thomas A. Boland.
Peoria, Ill.: Joseph H. Schlarman.
Pittsburgh, Pa.: John F. Dearden.
Ponce, P. R.: James E. McManus, C.SS.R.
Portland, Maine: Joseph E. McCarthy; Daniel J. Feeney (A).
Providence, R. I.: Russell J. McVinney.
Pueblo, Colo.: Joseph C. Willging.
Raleigh, N. C.: Vincent S. Waters.
Rapid City, S. Dak.: William T. McCarty, C.Ss.R.
Reno, Nev.: Thomas K. Gorman.
Richmond, Va.: Peter L. Ireton.
Rochester, N. Y.: James E. Kearney.
Rockford, Ill.: John J. Boylan.
Sacramento, Calif.: Robert J. Armstrong.
Saginaw, Mich.: Stephen S. Woznicki.
St. Augustine, Fla.: **Joseph P. Hurley**; Thomas J. McDonough (A).
St. Cloud, Minn.: Joseph F. Busch; Peter W. Bartholome (C).
St. Joseph, Mo.: Charles H. Le Blond.
Salina, Kans.: Francis A. Thill.
Salt Lake City, Utah: Duane G. Hunt; J. Lennox Federal (A).
San Diego, Calif.: Charles F. Buddy.
San Juan, P. R.: James P. Davis.
Savannah-Atlanta, Ga.: **Gerald P. O'Hara**; Francis E. Hyland (A).
Scranton, Pa.: William J. Hafey; Henry T. Klonowski (A).
Sioux City, Iowa: Joseph M. Mueller.
Sioux Falls, S. Dak.: William O. Brady.
Spokane, Wash.: Charles D. White.
Springfield, Ill.: William A. O'Connor.
Springfield, Mass.: Christopher J. Weldon.
Steubenville, Ohio: John K. Mussio.
Superior, Wis.: Albert G. Meyer.
Syracuse, N. Y.: Walter A. Foery.
Toledo, Ohio: George J. Rehring.
Trenton, N. J.: George W. Ahr.
Tucson, Ariz.: Daniel J. Gercke.
Wheeling, W. Va.: John J. Swint; Thomas J. McDonnell (C).
Wichita, Kans.: Mark K. Carroll.
Wilmington, Del.: Edmond J. Fitzmaurice.
Winona, Minn.: Edward J. Fitzgerald.
Worcester, Mass.: John J. Wright.
Yakima, Wash.: Joseph P. Dougherty.
Youngstown, Ohio: James A. McFadden; Emmet M. Walsh (C).
Army and Navy: Francis Cardinal Spellman, Military Vicar; William Arnold, Military Delegate; James H. Griffiths, Military Delegate.
Belmont, N. C. (Abbacy Nullius): Vincent G. Taylor, O.S.B. (Abbot).
Philadelphia, Pa. (Byzantine Rite): Constantine Bohachevsky; Ambrose A. Senyshyn, O.S.B.M. (A).
Pittsburgh, Pa. (Greek Rite): Daniel Ivancho.

Jewish Congregational and Rabbinical Organizations

Source: Questionnaires to the organizations.

Central Conference of American Rabbis: 222 Buford Pl., Macon, Ga. Founded: 1889. Members: 650. Pres.: Philip S. Bernstein.

Rabbinical Assembly of America: 3080 Broadway, New York 27, N. Y. Founded: 1901. Members: about 485. Pres.: Rabbi Max D. Davidson.

Rabbinical Council of America, Inc.: 331 Madison Ave., New York 17, N. Y. Founded: 1935. Members: 450. Pres.: Rabbi Samuel Berliant.

Synagogue Council of America: 110 W. 42nd St., New York 18, N. Y. Founded: 1926. Members: 6, comprising national congregational and rabbinical bodies of U. S. Exec. Dir.: Rabbi Hirsch E. L. Freund.

Union of American Hebrew Congregations: 858 Fifth Ave., New York 21, N. Y. Founded: 1873. Members: 437 Liberal Jewish Congregations. Pres.: Rabbi Maurice N. Eisendrath.

Union of Orthodox Rabbis of the U. S. and Canada: 132 Nassau St., New York 7, N. Y. Founded: 1902. Members: 550. Chm. of Presidium: Rabbi Israel Rosenberg.

The United Synagogue of America: 3080 Broadway, New York 27, N. Y. Founded: 1913. Members: 410 Congregations. Exec. Dir.: Dr. Simon Greenberg.

Union of Orthodox Jewish Congregations of America: 305 Broadway, New York 7, N. Y. Founded: 1898. Members: 500 congregations. Pres.: William B. Herlands.

Religious and Secular Holidays, 1952

NEW YEAR'S DAY—Tuesday, Jan. 1—A legal holiday in all states and the District of Columbia, New Year's Day has its origin in Roman times, when sacrifices were offered to Janus, the two-faced Roman deity who looked back on the past and forward to the future.

EPIPHANY—Sunday, Jan. 6—Falls the twelfth day after Christmas and commemorates the manifestation of Jesus as the Son of God, as represented by the adoration of the Magi, the baptism of Jesus, and the miracle of the wine at the marriage feast at Cana. Epiphany originally marked the beginning of the carnival season preceding Lent, and the evening (sometimes the eve) is known as Twelfth Night.

LINCOLN'S BIRTHDAY—Tuesday, Feb. 12—A legal holiday in many states, this day was first formally observed in Washington, D. C., in 1866, when both houses of Congress gathered for a memorial address in honor of the dead President.

ST. VALENTINE'S DAY—Thursday, Feb. 14—This day is the festival of two 3rd-century martyrs, both named St. Valentine. It is not known why this day is associated with lovers. It may derive from an old pagan festival about this time of year, or it may have been inspired by the belief that birds mate on this day.

WASHINGTON'S BIRTHDAY — Friday, Feb. 22—The birthday of George Washington is celebrated as a legal holiday in every state of the Union, the District of Columbia and all territories. The observance began in 1796, three years before his death.

SHROVE TUESDAY—Feb. 26—Falls the day before Ash Wednesday and marks the end of the carnival season, which once began on Epiphany but is now usually celebrated the last three days before Lent. In France, the day is known as Mardi Gras (Fat Tuesday), and Mardi Gras celebrations are also held in several American cities, particularly in New Orleans. The day is sometimes called Pancake Tuesday by the English because of the need of using up fats which were prohibited during Lent.

ASH WEDNESDAY—Feb. 27—The first day of the Lenten season, which lasts forty days. Having its origin sometime before A.D. 1000, it is a day of public penance and is marked in the Roman Catholic Church by the burning of the palms blessed on the previous Palm Sunday. With his thumb, the priest then marks a cross upon the forehead of each worshipper. The Anglican Church and a few Protestant groups in the United States also celebrate the day, but generally without the use of ashes.

ST. PATRICK'S DAY—Monday, March 17—St. Patrick, patron saint of Ireland, has been honored in America since the first days of the nation. There are many dinners and meetings and perhaps the most notable part of the observance is the annual St. Patrick's Day parade on Fifth Avenue in New York City.

PALM SUNDAY—April 6—Is observed the Sunday before Easter to commemorate the entry of Jesus into Jerusalem. The procession and the ceremonies introducing the benediction of palms probably had their origin in Jerusalem. It seems certain that the bearing of the palms during services was the earlier practice, then came the procession, and later the benediction of the palms.

FIRST DAY OF PASSOVER (Pesach)—Thursday, April 10 (Nisan 15)—The Feast of the Passover, also called the Feast of Unleavened Bread, commemorates the escape of the first-born of the Jews from the Angel of Death, who took from the Egyptians their first-born, thus fulfilling the prophecy of Moses. As the Jews fled Egypt, they ate unleavened bread, and from that time the Jews have allowed no leavening in the houses during Passover, bread being replaced by matzoth.

GOOD FRIDAY—April 11—This day commemorates the Crucifixion, which is retold during services from the Gospel according to St. John. A feature in Roman Catholic churches is the Mass of the Presanctified: there is no Consecration, the Host having been consecrated the previous day. The eating of hot cross buns on this day is said to have started in England.

EASTER SUNDAY—April 13—Observed in all Christian churches, Easter is the principal feast of the ecclesiastical year, and commemorates the Resurrection of Jesus. It is celebrated on the first Sunday after the full moon which occurs on or next after March 21 and is therefore celebrated between March 22 and April 25 inclusive. This date was fixed by the Council of Nicaea in 325. The Venerable Bede, the English monk and ecclesiastical historian, claimed the word to have originated from

the Anglo-Saxon *Eôstre*, old Teutonic goddess of spring.

ASCENSION DAY—Thursday, May 22—Took place in the presence of His apostles 40 days after the Resurrection of Jesus. It is traditionally held to have occurred on Mount Olivet in Bethany.

MEMORIAL DAY—Friday, May 30—Also known as Decoration Day, Memorial Day is a legal holiday in all the northern states and in the territories, and is also observed by the armed forces. In 1868, General John A. Logan, Commander in Chief of the Grand Army of the Republic, issued an order designating the day as one in which the graves of soldiers would be decorated. The holiday was originally devoted to honoring the memory of those who fell in the Civil War, but is now also dedicated to the memory of the dead of all wars.

FIRST DAY OF SHABUOTH (Hebrew Pentecost)—Friday, May 30 (Sivan 6)—This festival, sometimes called the Feast of Weeks, or of Harvest, or of the First Fruits, falls fifty days after Passover and originally celebrated the end of the seven-week grain harvesting season. In later tradition, it also celebrated the giving of the Law to Moses on Mt. Sinai, and both aspects have come down to the present.

PENTECOST (Whitsunday)—June 1—This day commemorates the descent of the Holy Ghost upon the Apostles fifty days after the Resurrection. The sermon by the Apostle Peter, which led to the baptism of 3000 who professed belief, originated the ceremonies that have since been followed. "Whitsunday" is believed to have come from "white Sunday" when, among the English, white robes were worn by those baptized on the day.

FLAG DAY—Saturday, June 14—This day commemorates the adoption by the Continental Congress on June 14, 1777, of the Stars and Stripes as the U. S. flag. Although it is a legal holiday only in Pennsylvania, President Truman, on Aug. 3, 1949, signed a bill requesting the President to call for its observance each year by proclamation.

INDEPENDENCE DAY—Friday, July 4—The day of the adoption of the Declaration of Independence in 1776, celebrated in all states and territories. The observance began in the next year in Philadelphia.

LABOR DAY—Monday, Sept. 1—Observed the first Monday in September in all states and territories, Labor Day was first celebrated in New York in 1882 under the sponsorship of the Central Labor Union, following the suggestion of Peter J. McGuire, of the Knights of Labor, that the day be set aside in honor of labor.

FIRST DAY OF ROSH HASHANA (Jewish New Year)—Saturday, Sept. 20 (Tishri 1)—This day marks the beginning of the Jewish year 5712 and opens the Ten Days of Penitence, closing with Yom Kippur.

YOM KIPPUR (Day of Atonement)—Monday, Sept. 29 (Tishri 10)—This day marks the end of the Ten Days of Penitence that began with Rosh Hashana and is the holiest day of the Jewish year. It is described in *Leviticus* as the "Sabbath of Sabbaths," and synagogue services begin the preceding sundown, resume the following morning, and continue through the day to sundown. Daily pursuits are refrained from, and the day is spent in prayers, fasting, and penitence.

FIRST DAY OF SUKKOTH (Feast of Tabernacles)—Saturday, Oct. 4 (Tishri 15)—This festival, also known as the Feast of the Ingathering, originally celebrated the fruit harvest, and the name comes from the booths or tabernacles in which the Jews lived during the harvest, although one tradition traces it to the shelters used by the Jews in their wandering through the wilderness. During the festival, many Jews build small huts in their back yards or on the roofs of houses.

COLUMBUS DAY—Sunday, Oct. 12—A legal holiday in many states, commemorating the discovery of America by Columbus in 1492. Quite likely the first celebration of Columbus Day was that organized in 1792 by the Society of St. Tammany, or Columbian Order, more widely known as Tammany Hall.

ELECTION DAY (in certain states)—Tuesday, Nov. 4—Since 1845, by Act of Congress, the first Tuesday after the first Monday in November is the date for choosing Presidential electors. State elections are also generally held on this day.

ARMISTICE DAY—Tuesday, Nov. 11—Commemorates the signing of the Armistice ending World War I in 1918. A Congressional resolution in 1926 directed the President to issue a proclamation annually for observance of the day. It is a legal holiday in many states and in others observance is asked by proclamation of the governors. As part of the day's observance, two minutes of silence are included in the ceremonies honoring the memories of the war dead. The most notable observance is at the Tomb of the Unknown Soldier in Arlington Cemetery, in Arlington, Va.

THANKSGIVING—Thursday, Nov. 27—Observed nationally on the fourth Thursday in November by Act of Congress (1941), the first such national proclamation having been issued by President Lincoln in 1863, on the urging of Mrs. Sarah J. Hale, editor of *Godey's Lady's Book*. Most Americans believe that the holiday dates back to the day of thanks ordered by Governor Bradford of Plymouth Colony in New England in 1621, but

scholars point out that days of thanks stem from ancient times.

FIRST SUNDAY IN ADVENT—Nov. 30—Advent is the season in which the faithful must prepare themselves for the advent of the Saviour on Christmas. The four Sundays before Christmas are marked by special church services.

FIRST DAY OF HANUKKAH (Festival of Lights)—Saturday, Dec. 13 (Kislev 25)—This festival was instituted by Judas Maccabaeus in 165 B.C. to celebrate the purification of the Temple of Jerusalem, which had been desecrated three years earlier by Antiochus Epiphanes, who set up a pagan altar and offered sacrifices to Zeus Olympius. In Jewish homes, a light is lighted the first night, and on each succeeding night of the eight-day festival, another is lighted.

CHRISTMAS (Feast of the Nativity)—Thursday, Dec. 25—The most important and the most widely celebrated holiday of the Christian year, it is observed as the anniversary of the birth of Jesus. Christmas customs are centuries old. The mistletoe, for example, comes from the Druids, who, in hanging the mistletoe, hoped for peace and good fortune. Use of such plants as holly comes from the ancient belief that such plants blossomed at Christmas. Comparatively recent is the Christmas tree, first set up in Germany in the 17th century, and the use of candles on trees developed from the belief that candles appeared by miracle on the trees at Christmas. Colonial Manhattan Islanders introduced the name Santa Claus, a corruption of the Dutch name for the 4th-century Asia-Minor St. Nicholas.

Movable Holidays, 1952 to 1961

CHRISTIAN AND SECULAR

Year	Ash Wed.	Easter	Pentecost	Labor Day	Election Day	Thanks-giving	1st Sun. Advent
1952	Feb. 27	Apr. 13	June 1	Sept. 1	Nov. 4	Nov. 27	Nov. 30
1953	Feb. 18	Apr. 5	May 24	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1954	Mar. 3	Apr. 18	June 6	Sept. 6	Nov. 2	Nov. 25	Nov. 28
1955	Feb. 23	Apr. 10	May 29	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1956	Feb. 15	Apr. 1	May 20	Sept. 3	Nov. 6	Nov. 22	Dec. 2
1957	Mar. 6	Apr. 21	June 9	Sept. 2	Nov. 5	Nov. 28	Dec. 1
1958	Feb. 19	Apr. 6	May 25	Sept. 1	Nov. 4	Nov. 27	Nov. 30
1959	Feb. 11	Mar. 29	May 17	Sept. 7	Nov. 3	Nov. 26	Nov. 29
1960	Mar. 2	Apr. 17	June 5	Sept. 5	Nov. 8	Nov. 24	Nov. 27
1961	Feb. 15	Apr. 2	May 21	Sept. 4	Nov. 7	Nov. 23	Dec. 3

Shrove Tuesday: 1 day before Ash Wednesday.
Palm Sunday: 7 days before Easter.
Maundy Thursday: 3 days before Easter.
Good Friday: 2 days before Easter.
Holy Saturday: 1 day before Easter.
Ascension Day: 10 days before Pentecost.
Trinity Sunday: 7 days after Pentecost.
Corpus Christi: 11 days after Pentecost.

JEWISH

Year	Purim	1st day Passover	1st day Shabuoth	1st day Rosh Hashana	Yom Kippur	1st Day Sukkoth	Simhath Torah	1st Day Hanukkah
1952	Mar. 11	Apr. 10	May 30	Sept. 20	Sept. 29	Oct. 4	Oct. 12	Dec. 13
1953	Mar. 1	Mar. 31	May 20	Sept. 10	Sept. 19	Sept. 24	Oct. 2	Dec. 2
1954	Mar. 19	Apr. 18	June 7	Sept. 28	Oct. 7	Oct. 12	Oct. 20	Dec. 20
1955	Mar. 8	Apr. 7	May 27	Sept. 17	Sept. 26	Oct. 1	Oct. 9	Dec. 10
1956	Feb. 26	Mar. 27	May 16	Sept. 6	Sept. 15	Sept. 20	Sept. 28	Nov. 29
1957	Mar. 17	Apr. 16	June 5	Sept. 26	Oct. 5	Oct. 10	Oct. 18	Dec. 18
1958	Mar. 6	Apr. 5	May 25	Sept. 15	Sept. 24	Sept. 29	Oct. 7	Dec. 7
1959	Mar. 24	Apr. 23	June 12	Oct. 3	Oct. 12	Oct. 17	Oct. 25	Dec. 26
1960	Mar. 13	Apr. 12	June 1	Sept. 22	Oct. 1	Oct. 6	Oct. 14	Dec. 14
1961	Mar. 2	Apr. 1	May 21	Sept. 11	Sept. 20	Sept. 25	Oct. 2	Dec. 3

Length of Jewish holidays (O = Orthodox, C = Conservative, R = Reform):

Passover: O & C, 8 days (holy days: first 2 and last 2); R, 7 days (holy days: first and last).
Shabuoth: O & C, 2 days; R, 1 day.
Rosh Hashana: O & C, 2 days; R, 1 day.
Yom Kippur: All groups, 1 day.
Sukkoth: All groups, 7 days (holy days: O & C, first 2; R, first only). O & C observe two additional days: Shemini Atsereth (Eighth Day of the Feast) and Simhath Torah (Rejoicing of the Law). R observes Shemini Atsereth but not Simhath Torah.
Hanukkah: All groups, 8 days.

NOTE: All holidays begin at sundown on the evening before the date given.

THE UNITED NATIONS

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By MARCUS DUFFIELD

The Korean war continued in 1951 to overshadow all other U. N. activities.

Less than 24 hours after the Communist army of North Korea crossed the 38th Parallel to invade South Korea, the Security Council met in special session on Sunday afternoon, June 25, 1950, branded the fighting a breach of the peace under Chapter VII of the Charter, and called for a cease-fire within 24 hours. Russia was boycotting the U. N. at the time because it would not admit Communist China to membership; therefore, the Soviet delegate was not present to block Council action.

On the morning of June 27, it was obvious that the North Koreans were going ahead with the invasion, and President Truman ordered American air and naval forces to assist the South Korean defenders. That afternoon, the Security Council recommended "that the members of the United Nations furnish such assistance to the Republic of Korea as may be necessary to repel the armed attack and to restore peace and security in the area." The vote was 7–1, with Yugoslavia opposed and India and Egypt abstaining, although India later signified agreement. During the next fortnight, 47 nations notified Secretary General Trygve Lie that they supported the Security Council. Thus the Korean war became a U. N. project.

As of June 1, 1951, 16 nations had combat forces in action in Korea: Australia, Belgium, Canada, Colombia, Ethiopia, France, Greece, Luxemburg (44 troops), Netherlands, New Zealand, the Philippines, Thailand, Turkey, the Union of South Africa, the United Kingdom and the U. S. Five other nations had offered combat aid, but acceptance had been deferred: Bolivia, Nationalist China, Costa Rica, El Salvador and Panamá. India, Norway, Panamá and Sweden had furnished noncombat assistance, such as transport or hospital units.

For military reasons, the strength of the various units was not made public; but the following unofficial estimate will give an idea of the relative contributions: U. S., 350,000 troops; South Korea, 250,000; all other U. N. countries, 50,000 troops.

Soviet Russia ended its boycott of the Security Council on Aug. 1, 1950, and the Council thereafter was able to take little action on Korea. On Nov. 30, 1950, for example, Soviet Delegate Yakov Malik cast Russia's 49th veto to kill a resolution asking Communist Chinese troops to withdraw from Korea. The Assembly, however, was not similarly inhibited. On Oct. 4, 1950, its Political Committee tacitly approved the invasion of North Korea by recommending that "all appropriate steps be taken to ensure conditions of stability throughout Korea."

In 1951, the General Assembly made a peace appeal to Communist China, but it was at once rejected. On Feb. 1, the Assembly condemned that country as an aggressor by a vote of 44–7, with 9 abstentions. On Feb. 16, Premier Stalin denounced the U. N. as an "instrument of war." On May 18, the General Assembly voted 47–0 to recommend that all member nations prohibit shipment of war materials to Communist China.

THE ISRAEL CASE

With the help of the U. N., truces were arranged in the spring of 1949 between Israel and nearby Arab states after a war of approximately a year's length. The U. N. then set up a Palestine Conciliation Commission in the hope of facilitating permanent peace treaties, and the commission was still working at the problem in the autumn of 1951. A conference opened in Paris on Sept. 13, 1951, with delegations from Israel, Egypt, Syria, Lebanon and Jordan. But the commission had to meet separately with the Israeli and the Arab delegations, because the Arabs refused to meet directly with the Israelis. The chief stumbling block was the problem of the approximately 800,000 Arab refugees driven out of Palestine by the war and currently on U. N. relief in countries surrounding Israel. The U. N. commission proposed that some of the refugees be allowed to return to their homes in Israel, and that those not returning be compensated by Israel for their property.

THE KASHMIR CASE

India and Pakistan engaged in limited warfare in 1948 over the question of which country should control the princely state of Kashmir. The U. N. obtained a truce early in 1949 and sent a commission to arrange a permanent settlement. It failed. Then the U. N. sent a mediator, Sir Owen Dixon of Australia. He failed. On April 30, 1951, the Security Council appointed a new mediator, Dr. Frank P. Graham of the U. S. On Oct. 18, 1951, he reported no progress and suggested that the negotiations continue. The goal of the mediators was to persuade India and Pakistan to withdraw troops from Kashmir and agree on arrangements for a plebiscite to record the wishes of the people of Kashmir as to which country they wanted to join.

The 60 Members of the United Nations, Oct., 1951

Country	Signed U. N. Declaration[1]	Joined U. N. Organization[2]	League of Nations[3]
Afghanistan	....	1946	1934–46
Argentina	1945	1945	1919–46
Australia	1942	1945	1920–46
Belgium	1942	1945	1920–46
Bolivia	1943	1945	1920–46
Brazil	1943	1945	1920–28
Burma	....	1948	.....
Byelorussian S.S.R.[4]	....	1945	.....
Canada	1942	1945	1920–46
Chile	1945	1945	1919–40
China	1942	1945	1920–46
Colombia	1944	1945	1920–46
Costa Rica	1942	1945	1920–26
Cuba	1942	1945	1920–46
Czechoslovakia	1942	1945	1920–46
Denmark[5]	....	1945	1920–46
Dominican Republic	1942	1945	1924–46
Ecuador	1945	1945	1934–46
Egypt	1945	1945	1937–46
El Salvador	1942	1945	1920–39
Ethiopia	1943	1945	1923–46
France	1945	1945	1920–46
Greece	1942	1945	1920–46
Guatemala	1942	1945	1920–38
Haiti	1942	1945	1920–44
Honduras	1942	1945	1920–38
Iceland	....	1946	.....
India	1942	1945	1920–46
Indonesia	....	1950	.....
Iran	1943	1945	1919–46
Iraq	1943	1945	1932–46
Israel	....	1949	.....
Lebanon	1945	1945	.....
Liberia	1944	1945	1920–46
Luxemburg	1942	1945	1920–46
Mexico	1942	1945	1931–46
Netherlands	1942	1945	1920–46
New Zealand	1942	1945	1920–46
Nicaragua	1942	1945	1920–38
Norway	1942	1945	1920–46
Pakistan	....	1947	.....
Panamá	1942	1945	1920–46
Paraguay	1945	1945	1920–37
Peru	1945	1945	1920–41
Philippines	1942	1945	.....
Poland[6]	1942	1945	1920–46
Saudi Arabia	1945	1945	.....
South Africa, U. of	1942	1945	1920–46
Sweden	....	1946	1920–46
Syria	1945	1945	.....
Thailand	....	1946	1920–46
Turkey	1945	1945	1932–46
Ukrainian S.S.R.[4]	....	1945	.....
United Kingdom	1942	1945	1920–46
United States	1942	1945	.....
U.S.S.R.	1942	1945	1934–39
Uruguay	1945	1945	1920–46
Venezuela	1945	1945	1920–40
Yemen	....	1947	.....
Yugoslavia	1942	1945	1920–46

[1] Declaration of United Nations was originally signed by 26 nations in Washington, D.C., on Jan. 1, 1942. [2] U. N. officially came into existence Oct. 24, 1945. [3] League was formally dissolved Apr. 18, 1946. Nations withdrawing before that time did so voluntarily, except U.S.S.R., which was expelled. Other members of League were: Albania (1920–46), Austria (1920–40), Bulgaria (1920–46), Eire (1923–46), Estonia (1921–46), Finland (1920–46), Germany (1926–35), Hungary (1922–41), Italy (1920–39), Japan (1920–35), Latvia (1921–46), Lithuania (1921–46), Portugal (1920–46), Rumania (1920–42), Spain (1920–41), Switzerland (1920–46). [4] Admission as separate nation approved at San Francisco Conference. [5] Invited to attend San Francisco Conference June 5, 1945, after its liberation. [6] Not represented at San Francisco Conference, but subsequently signed Charter as original member.

Delegation Heads to the United Nations

Members Represented at Headquarters*

Afghanistan: Abdol Hosayn Aziz
Argentina: Dr. Rodolfo Munoz (acting)
Australia: Keith Charles Owen Shann (acting)
Belgium: Fernand van Langenhove
Bolivia: Roberto Bilbao-la-Vieja
Brazil: Joao Carlos Muniz
Canada: E. Herbert Norman (acting)
Chile: Hernán Santa Cruz
China: Dr. Ting-Fu Tsiang
Colombia: Dr. Eliseo Arango
Costa Rica: Emilio Val Verde Vega
Cuba: Dr. Ernesto Dihigo
Czechoslovakia: Jiri Nosek (acting)
Denmark: William Borberg
Dominican Republic: Dr. Max Henriquez-Urena
Ecuador: Dr. Antonio Quevedo
Egypt: Mahmoud Fawzi Bey
El Salvador: Dr. Miguel Rafael Urquia
France: Jean Chauvel
Greece: Alexis Kyrou
Guatemala: Dr. Ricardo Castaneda Paganini
Haiti: Dantes Bellegarde
Honduras: Dr. Tiburcio Carias, Jr.
Iceland: Thor Thors
India: Sir Benegal Narsing Rau
Indonesia: L. N. Palar
Iran: Dr. Ali Gholi Ardalan
Iraq: Awni Khalidy (acting)
Israel: Abba Eban
Lebanon: Dr. Karim Azkoul (acting)
Liberia: Charles D. B. King
Mexico: Dr. Luis Padilla Nervo
Netherlands: D. J. von Balluseck
New Zealand: Sir Carl Berendsen
Nicaragua: Dr. Guillermo Sevilla-Sacasa
Norway: Arne Sunde
Pakistan: Prof. Ahmed S. Bokhari
Panamá: Jeptha B. Duncan
Paraguay: Dr. Osvaldo Chaves
Peru: Carlos Holguin de Lavalle

* Permanent representative to U. N.

Philippines: Brig. Gen. Carlos P. Romulo
Poland: Henryk Birecki
Saudi Arabia: Sheikh Asad Al-Faqih
Sweden: Sven Grafström
Syria: Dr. Farid Zeineddine
Thailand: Prince Wan Waithayakon
Turkey: Selim Sarper
Union of South Africa: G. P. Jooste
U.S.S.R.: Yakov A. Malik
United Kingdom: Sir Gladwyn Jebb
United States: Warren R. Austin
Uruguay: Prof. Enrique Rodriguez Fabregat
Venezuela: Dr. César Gonzalez
Yugoslavia: Dr. Ales Bebler

Security Council*

Brazil: Joao Carlos Muniz
China: Dr. Ting-Fu Tsiang
Ecuador: Dr. Antonio Quevedo
France: Jean Chauvel
India: Sir Benegal Narsing Rau
Netherlands: D. J. von Balluseck
Turkey: Selim Sarper
U.S.S.R.: Yakov A. Malik
United Kingdom: Sir Gladwyn Jebb
United States: Warren R. Austin
Yugoslavia: Dr. Ales Bebler

* As of 1951.

Economic and Social Council*

Belgium: Gaston Eyskens
Canada: Jean Lesage
Chile: Hernán Santa Cruz
China: Dr. Yu Tsune-Chi
Czechoslovakia: Jiri Nosek
France: Pierre Abelin
India: T. T. Krishnamachari
Iran: Hossein Navab
Mexico: Dr. Pedro de Laba
Pakistan: Sardar Bahadur Khan
Peru: Dr. Teodosio Cabada
Philippines: Cornelio Balmaceda
Poland: Juliusz Katz-Suchy
Sweden: Richard Sterner
U.S.S.R.: G. P. Arkadiev
United Kingdom: K. G. Younger
United States: Isadore Lubin
Uruguay: Dr. Cesar Charlone

* As of 13th session held in Geneva, July 30 to Sept. 21, 1951.

Trusteeship Council*

Argentina: Dr. Jerónimo Remorino
Australia: B. C. Ballard
Belgium: Pierre Ryckmans
China: Dr. S. S. Liu
Dominican Republic: Dr. Max Henriquez-Urena
France: Leon Pignon
Iraq: Awni Khalidy
New Zealand: Sir Carl Berendsen
Thailand: Prince Wan Waithayakon
U.S.S.R.: Aleksander A. Soldatov
United Kingdom: Sir Alan Guthbert Burns
United States: Francis B. Sayre

* As of 9th session held at Flushing Meadow, N. Y., June 5 to July 30, 1951.

Nations Serving Terms on U. N. Councils

Security Council

Permanent members: China; France; United Kingdom; U. S.; U.S.S.R.
Jan. 1946–Dec. 1946: Egypt; Mexico; Netherlands.
Jan. 1946–Dec. 1947: Australia; Brazil; Poland.
Jan. 1947–Dec. 1948: Belgium; Colombia; Syria.
Jan. 1948–Dec. 1949: Argentina; Canada; Ukrainian S.S.R.
Jan. 1949–Dec. 1950: Cuba; Egypt; Norway.
Jan. 1950–Dec. 1951: Ecuador; India; Yugoslavia.
Jan. 1951–Dec. 1952: Brazil; Netherlands; Turkey.
Jan. 1947–Dec. 1949: Byelorussian S.S.R.; Lebanon; New Zealand; Turkey; U. S.; Venezuela.
Jan. 1948–Dec. 1950: Australia; Brazil; Denmark; Poland; United Kingdom; U.S.S.R.
Jan. 1949–Dec. 1951: Belgium; Chile; China; France; India; Peru.
Jan. 1950–Dec. 1952: Canada; Czechoslovakia; Iran; Mexico; Pakistan; U. S.
Jan. 1951–Dec. 1953: Philippines; Poland; Sweden; United Kingdom; Uruguay; U.S.S.R.

Economic and Social Council

Jan. 1946–Dec. 1946: Colombia; Greece; Lebanon; Ukrainian S.S.R.; U. S.; Yugoslavia.
Jan. 1946–Dec. 1947: Cuba; Czechoslovakia; India; Norway; United Kingdom; U.S.S.R.
Jan. 1946–Dec. 1948: Belgium; Canada; Chile; China; France; Peru.

Trusteeship Council

Permanent members: Australia*; Belgium*; China†; France*; New Zealand*; United Kingdom*; U. S.*; U.S.S.R.†
Jan. 1947–Dec. 1949: Iraq; Mexico.
Jan. 1948–Dec. 1950: Costa Rica (resigned 1949 and replaced by Dominican Republic); Philippines.
Jan. 1950–Dec. 1952: Argentina; Iraq.
Jan. 1951–Dec. 1953: Dominican Republic; Thailand.

* Administering trust territories. † Permanent member of Security Council not administering trust territories.

Judges of International Court of Justice

(Judges serve for a 9-year term and may be re-elected. In the first election of Feb. 6, 1946, however, they were designated for terms of 3, 6 and 9 years. In the second election of Oct. 22, 1948, all 5 judges whose terms were due to expire in 1949 were re-elected for full terms. Expiration dates of terms are shown in parentheses. The seat of the Court is The Hague, Netherlands.)

President: Jules Basdevant, France (1955)
Vice President: José G. Guerrero, El Salvador (1955)

Alejandro Alvarez, Chile (1955)
Abdel Hamid Badawi Pasha, Egypt (1958)
J. Philadelpho de Barros e Azevado, Brazil (1955)
Isidro Fabela Alfaro, Mexico (1952)
Green H. Hackworth, U. S. (1952)
Hsu Mo, China (1958)
Helge Klaestad, Norway (1952)
Sergei B. Krylov, U.S.S.R. (1952)
Sir Arnold D. McNair, U. K. (1952)
John M. Read, Canada (1958)
Charles de Visscher, Belgium (1952)
Bohdan Winiarski, Poland (1958)
Milovan Zoricitch, Yugoslavia (1958)

Specialized Agencies of the United Nations

Source: U. N. Dept. of Public Information (Research Section)

Food and Agriculture Organization of the United Nations (FAO)

Established: Oct. 16, 1945, when constitution was signed in Quebec.

Purposes: To raise nutrition levels and living standards; to secure improvements in production and distribution of food and agricultural products; to better condition of country dwellers; by these means, to contribute to expanding world economy.

Headquarters: Viale della Terma de Caracolla, Rome, Italy.

Inter-Governmental Maritime Consultative Organization (IMCO)

Established: Will not come into existence until 21 nations, of which 7 must each have a total tonnage of at least one million gross tons of shipping, have become parties to convention drawn up by U. N. Maritime Conference at Geneva, Feb. 19 to Mar. 6, 1948. (Preparatory Committee established by Conference will cease to exist after IMCO comes into being.)

Purposes: To promote co-operation among governments in technical problems of international shipping and to encourage removal of discriminatory action by governments and of unfair restrictive practices by shipping concerns.

Headquarters: To be in London.

International Bank for Reconstruction and Development (Bank)

Established: Dec. 27, 1945, when 28 nations signed Articles of Agreement drawn up at Bretton Woods Conference in July, 1944.

Purposes: To assist in reconstruction and development of economies of members by making loans directly and promoting private foreign investment; to promote balanced growth of international trade and maintain equilibrium in balance of payments.

Headquarters: 1818 H St., Washington 25, D. C.

International Civil Aviation Organization (ICAO)

Established: Apr. 4, 1947, 30 days after 26th nation ratified Convention on International Civil Aviation adopted Dec. 7, 1944, by Chicago International Civil Aviation Conference.

Purposes: To study problems of international civil aviation and establish international standards and regulations.

Headquarters: International Aviation Bldg., Montreal, Canada.

International Labour Organisation (ILO)*

Established: Apr. 11, 1919, when constitution was adopted as Part XIII of Treaty of Versailles.

Purposes: To contribute to establishment of lasting peace by promoting social justice; to improve, through international action, labor conditions and living standards; to promote economic and social stability.

Headquarters: Geneva, Switzerland.

International Monetary Fund (Fund)

Established: Dec. 27, 1945, when nations whose quotas amounted to 80% of Fund's resources had signed Articles of Agreement drawn up at Bretton Woods.

Purposes: To promote international monetary co-operation and expansion of international trade; to promote exchange stability; to assist in establishment of multilateral system of payments in respect of current transactions between members.

Headquarters: 1818 H St., Washington 6, D. C.

International Refugee Organization (IRO)

Established: Aug. 20, 1948, when 15 nations contributing at least 75% of operational budget had become party to constitution.

Purposes: To provide following services in regard to refugees and displaced per-

* Spelling preferred by ILO.

Specialized Agencies of the United Nations—(cont.)

sons: Repatriation; identification, registration and classification; care and assistance; legal and political protection; transport; and resettlement and re-establishment.

Headquarters: Palais Wilson, Rue des Paquis, Geneva, Switzerland.

International Telecommunication Union (ITU)

Established: Jan. 1, 1934, when International Telecommunication Convention adopted on Dec. 9, 1932, at Madrid Conference became effective.

Purposes: To maintain and extend international co-operation for improvement and rational use of all kinds of telecommunication and to promote development and most efficient operation of technical facilities.

Headquarters: Palais Wilson, Rue de Paquis, Geneva, Switzerland.

International Trade Organization (ITO)

Established: Will not come into existence until sufficient number of countries have ratified Havana Charter drawn up by U. N. Conference on Trade and Employment at Havana, Cuba, Nov. 21, 1947, to Mar. 24, 1948. (Interim Commission established by Conference will cease to exist after ITO comes into being.)

Purposes: To promote expansion of world trade and removal of trade barriers.

United Nations Educational, Scientific and Cultural Organization (UNESCO)

Established: Nov. 4, 1946, when 20th signatory to constitution deposited instrument of acceptance with government of United Kingdom.

Purposes: To promote collaboration among nations through education, science and culture in order to further justice, rule of law and human rights and freedoms without distinction of race, sex, language or religion.

Headquarters: 19 Ave. Kléber, Paris, 16, France.

Universal Postal Union (UPU)

Established: Oct. 9, 1874, by Postal Convention of Bern, Switzerland, effective July 1, 1875.

Purposes: To assure organization and perfection of various postal services and to promote development of international collaboration. To this end, member countries are united in single postal territory for reciprocal exchange of mail.

Headquarters: Schwarztorstrasse 38, Bern, Switzerland.

World Health Organization (WHO)

Established: Apr. 7, 1948, when 26 members of the United Nations ratified constitution adopted July 22, 1945, by International Health Conference in New York City.

Purposes: To aid attainment by all peoples of highest possible level of health.

Headquarters: Palais des Nations, Geneva, Switzerland.

World Meteorological Organization (WMO)

Established: Mar. 23, 1950, 30 days after deposit with government of U. S. of 30th instrument of ratification of or accession to convention adopted in Washington, D. C., Oct. 11, 1947, by twelfth Conference of Directors of International Meteorological Organization (IMO).

Purposes: To facilitate world-wide co-operation and promote standardization in making of meteorological observations; to further application of meteorology to various human activities.

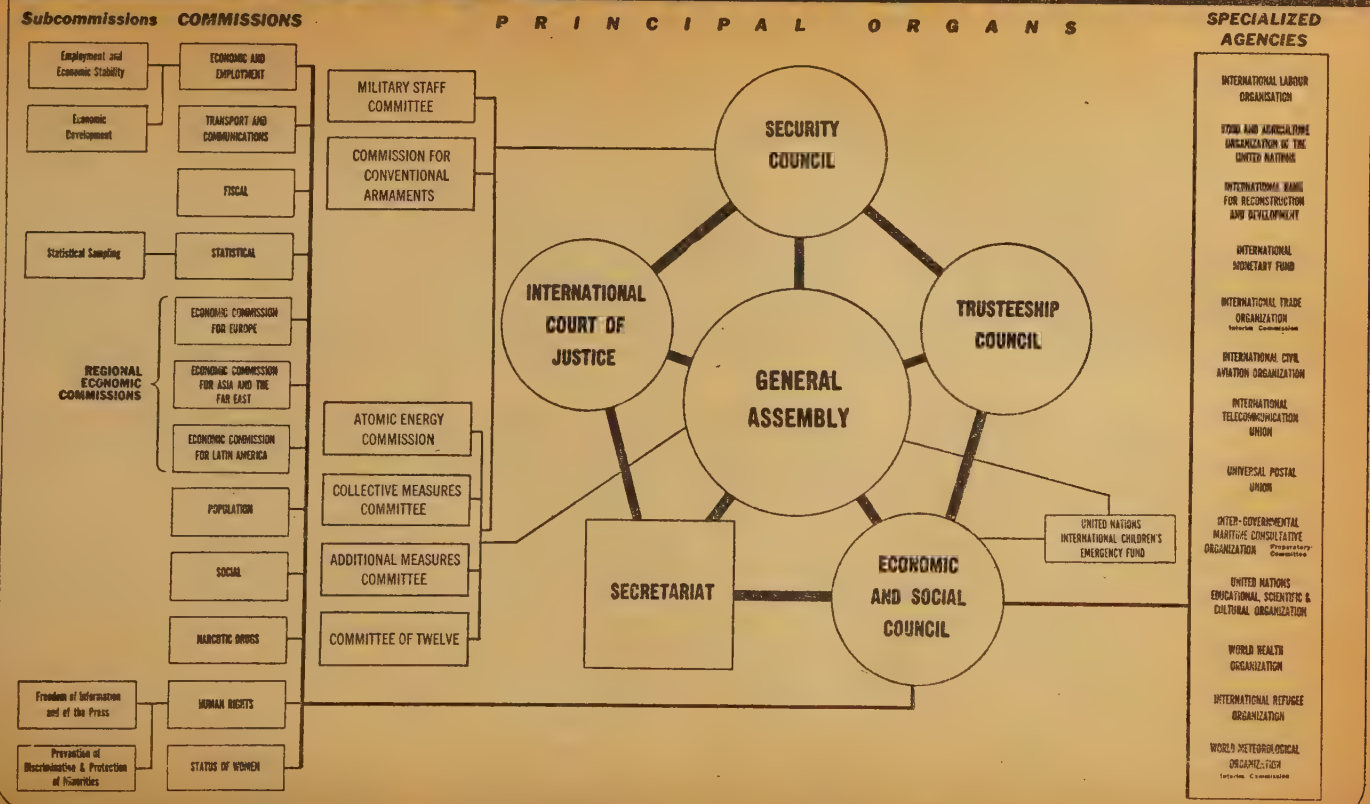
Headquarters: Geneva, Switzerland.

Countries Rejected for U. N. Membership

Country	Date of vote	Vote*
Albania	Aug. 29, 1946	5—3—3
Albania	Aug. 18, 1947	3—4—4
Albania	Sept. 15, 1949	2—1—8
Austria	Aug. 21, 1947	8—1—2†
Austria	Sept. 13, 1949	9—2—0†
Bulgaria	Aug. 21, 1947	1—1—9
Bulgaria	Oct. 1, 1947	1—3—7
Bulgaria	Sept. 15, 1949	3—1—7
Ceylon	Aug. 18, 1948	9—2—0†
Ceylon	Dec. 15, 1948	9—2—0†
Ceylon	Sept. 13, 1949	9—2—0†
Finland	Oct. 1, 1947	9—2—0†
Finland	Sept. 13, 1949	9—2—0†
Hungary	Aug. 21, 1947	1—1—9
Hungary	Oct. 1, 1947	5—0—6
Hungary	Sept. 15, 1949	3—1—7
Ireland	Aug. 29, 1946	9—1—1†
Ireland	Aug. 18, 1947	9—1—1†
Ireland	Sept. 13, 1949	9—2—0†
Israel‡	Dec. 17, 1948	5—1—5
Italy	Aug. 21, 1947	9—1—1†
Italy	Oct. 1, 1947	9—2—0†
Italy	Apr. 10, 1948	9—2—0†
Italy	Sept. 13, 1949	9—2—0†
Jordan	Aug. 29, 1946	8—2—1†
Jordan	Aug. 18, 1947	9—1—1†
Jordan	Sept. 13, 1949	9—2—0†
Korea, Rep. of	Apr. 8, 1949	9—2—0†
Mongolian People's Rep.	Aug. 29, 1946	6—3—2
Mongolian People's Rep.	Aug. 18, 1947	3—3—5
Mongolian People's Rep.	Sept. 15, 1949	2—2—7
Nepal	Sept. 7, 1949	9—2—0†
Portugal	Aug. 29, 1946	8—2—1†
Portugal	Aug. 18, 1947	9—2—0†
Portugal	Sept. 13, 1949	9—2—0†
Rumania	Aug. 21, 1947	1—0—10
Rumania	Oct. 1, 1947	4—0—7
Rumania	Sept. 15, 1949	3—1—7

* Security Council vote: for—against—abstaining. Unless vetoed, acceptance requires seven affirmative votes.
† Vetoed by U.S.S.R. ‡ Subsequently approved for membership.

ORGANS OF THE UNITED NATIONS



CHARTER OF THE UNITED NATIONS

WE, the peoples of the United Nations determined to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind, and

To reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small, and

To establish conditions under which justice and respect for the obligations arising from treaties and other sources of international law can be maintained, and

To promote social progress and better standards of life in larger freedom, and for these ends

To practice tolerance and live together in peace with one another as good neighbors, and

To unite our strength to maintain international peace and security, and

To insure, by the acceptance of principles and the institution of methods, that armed force shall not be used, save in the common interest, and

To employ international machinery for the promotion of the economic and social advancement of all peoples, have resolved to combine our efforts to accomplish these aims.

Accordingly, our respective governments, through representatives assembled in the city of San Francisco, who have exhibited their full powers found to be in good and due form, have agreed to the present Charter of the United Nations and do hereby establish an international organization to be known as the United Nations.

CHAPTER I

Purposes and Principles

Article 1

The purposes of the United Nations are:

1. To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace;

2. To develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace;

3. To achieve international co-operation in solving international problems of an economic, social, cultural or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion; and

4. To be a center for harmonizing the actions of nations in the attainment of these common ends.

Article 2

The organization and its members, in pursuit of the purposes stated in Article 1, shall act in accordance with the following principles:

1. The organization is based on the principle of the sovereign equality of all its members.

2. All members, in order to ensure to all of them the rights and benefits resulting from membership, shall fulfill in good faith the obligations assumed by them in accordance with the present Charter.

3. All members shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered.

4. All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations.

5. All members shall give the United Nations every assistance in any action it takes in accordance with the present Charter, and shall refrain from giving assistance to any state against which the United Nations is taking preventive or enforcement action.

6. The organization shall ensure that states not members of the United Nations act in accordance with these principles so far as may be necessary for the maintenance of international peace and security.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.

CHAPTER II

Membership

Article 3

The original members of the United Nations shall be the states which, having participated in the United Nations Conference on International Organization at San Francisco, or have previously signed

the Declaration by United Nations of Jan. 1, 1942, sign the present Charter and ratify it in accordance with Article 110.

Article 4

1. Membership in the United Nations is open to all other peace-loving states which accept the obligations contained in the present Charter and, in the judgment of the organization, are able and willing to carry out these obligations.

2. The admission of any such state to membership in the United Nations will be effected by a decision of the General Assembly upon the recommendation of the Security Council.

Article 5

A member of the United Nations against which preventive or enforcement action has been taken by the Security Council may be suspended from the exercise of the rights and privileges of membership by the General Assembly upon the recommendation of the Security Council. The exercise of these rights and privileges may be restored by the Security Council.

Article 6

A member of the United Nations which has persistently violated the principles contained in the present Charter may be expelled from the organization by the General Assembly upon the recommendation of the Security Council.

CHAPTER III

Organs

Article 7

1. There are established as the principal organs of the United Nations: A General Assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice and a Secretariat.

2. Such subsidiary organs as may be found necessary may be established in accordance with the present Charter.

Article 8

The United Nations shall place no restrictions on the eligibility of men and women to participate in any capacity and under conditions of equality in its principal and subsidiary organs.

CHAPTER IV

The General Assembly

Composition

Article 9

The General Assembly shall consist of all the members of the United Nations.

Each member shall not have more than five representatives in the General Assembly.

Functions and Powers

Article 10

The General Assembly may discuss any questions or any matters within the scope of the present Charter or relating to the powers and functions of any organs provided for in the present Charter, and, except as provided in Article 12, may make recommendations to the members of the United Nations or to the Security Council, or to both, on any such questions or matters.

Article 11

1. The General Assembly may consider the general principles of co-operation in the maintenance of international peace and security, including the principles governing disarmament and the regulation of armaments, and may make recommendations with regard to such principles to the members or to the Security Council or to both.

2. The General Assembly may discuss any questions relating to the maintenance of international peace and security brought before it by any member of the United Nations, or by the Security Council, or by a state, which is not a member of the United Nations, in accordance with Article 35, Paragraph 2, and, except as provided in Article 12, may make recommendations with regard to any such questions to the state or states concerned or to the Security Council, or both. Any such question on which action is necessary shall be referred to the Security Council by the General Assembly either before or after discussion.

3. The General Assembly may call the attention of the Security Council to situations which are likely to endanger international peace and security.

4. The powers of the General Assembly set forth in this Article shall not limit the general scope of Article 10.

Article 12

1. While the Security Council is exercising in respect of any dispute or situation the functions assigned to it in the present Charter, the General Assembly shall not make any recommendation with regard to that dispute or situation unless the Security Council so requests.

2. The Secretary-General, with the consent of the Security Council, shall notify the General Assembly at each session of any matters relative to the maintenance of international peace and security which are being dealt with by the Security Council and shall similarly notify the General Assembly, or the members of the United Na-

tions if the General Assembly is not in session, immediately the Security Council ceases to deal with such matters.

Article 13

1. The General Assembly shall initiate studies and make recommendations for the purpose of:

(a) Promoting international co-operation in the political field and encouraging the progressive development of international law and its codification;

(b) Promoting international co-operation in the economic, social, cultural, educational and health fields and assisting in the realization of human rights and fundamental freedoms for all without distinction as to race, sex, language or religion.

2. The further responsibilities, functions and powers of the General Assembly with respect to matters mentioned in Paragraph 1 (b) above are set forth in Chapters IX and X.

Article 14

Subject to the provisions of Article 12, the General Assembly may recommend measures for the peaceful adjustment of any situation, regardless of origin, which it deems likely to impair the general welfare or friendly relations among nations, including situations resulting from a violation of the provisions of the present Charter setting forth the purposes and principles of the United Nations.

Article 15

1. The General Assembly shall receive and consider annual and special reports from the Security Council; these reports shall include an account of the measures that the Security Council has decided upon or taken to maintain international peace and security.

2. The General Assembly shall receive and consider reports from the other organs of the United Nations.

Article 16

The General Assembly shall perform such functions with respect to the international trusteeship system as are assigned to it under Chapters XII and XIII, including the approval of the trusteeship agreements for areas not designated as strategic.

Article 17

1. The General Assembly shall consider and approve the budget of the organization.

2. The expenses of the organization shall be borne by the members as apportioned by the General Assembly.

3. The General Assembly shall consider and approve any financial and budgetary arrangements with specialized agencies referred to in Article 57 and shall examine the administrative budgets of such specialized agencies with a view to making recommendations to the agencies concerned.

Voting

Article 18

1. Each member of the General Assembly shall have one vote.

2. Decisions of the General Assembly on important questions shall be made by a two-thirds majority of the members present and voting. These questions shall include: recommendations with respect to the maintenance of international peace and security, the election of the non-permanent members of the Security Council, and election of the members of the Economic and Social Council, the election of members of the Trusteeship Council in accordance with Paragraph 1 (c) of Article 86, the admission of new members to the United Nations, the suspension of the rights and privileges of membership, the expulsion of members, questions relating to the operation of the trusteeship system, and budgetary questions.

3. Decisions on other questions, including the determination of additional categories of questions to be decided by a two-thirds majority, shall be made by a majority of the members present and voting.

Article 19

A member of the United Nations which is in arrears in the payment of its financial contributions to the organization shall have no vote in the General Assembly if the amount of its arrears equals or exceeds the amount of the contributions due from it for the preceding two full years. The General Assembly may, nevertheless, permit such a member to vote if it is satisfied that the failure to pay is due to conditions beyond the control of the member.

Procedure

Article 20

The General Assembly shall meet in regular annual sessions and in such special sessions as occasion may require. Special sessions shall be convoked by the Secretary-General at the request of the Security Council or of a majority of the members of the United Nations.

Article 21

The General Assembly shall adopt its own rules of procedure. It shall elect its president for each session.

Article 22

The General Assembly may establish such subsidiary organs as it deems necessary for the performance of its functions.

CHAPTER V

The Security Council

Composition

Article 23

1. The Security Council shall consist of eleven members of the United Nations. The Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, shall be permanent members of the Security Council. The General Assembly shall elect six other members of the United Nations to be non-permanent members of the Security Council, due regard being specially paid, in the first instance to the contribution of members of the United Nations to the maintenance of international peace and security and to the other purposes of the organization, and also to equitable geographical distribution.

2. The non-permanent members of the Security Council shall be elected for a term of two years. In the first election of the non-permanent members, however, three shall be chosen for a term of one year. A retiring member shall not be eligible for immediate re-election.

3. Each member of the Security Council shall have one representative.

Functions and Powers

Article 24

1. In order to insure prompt and effective action by the United Nations, its members confer on the Security Council primary responsibility for the maintenance of international peace and security, and agree that in carrying out its duties under this responsibility the Security Council acts on their behalf.

2. In discharging these duties the Security Council shall act in accordance with the purposes and principles of the United Nations. The specific powers granted to the Security Council for the discharge of these duties are laid down in Chapters VI, VII, VIII and XII.

3. The Security Council shall submit annual and, when necessary, special reports to the General Assembly for its consideration.

Article 25

The members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.

Article 26

In order to promote the establishment and maintenance of international peace and security with the least diversion for armaments of the world's human and economic resources, the Security Council shall be responsible for formulating, with the assistance of the Military Staff Committee referred to in Article 47, plans to be submitted to the members of the United Nations for the establishment of a system for the regulation of armaments.

Voting

Article 27

1. Each member of the Security Council shall have one vote.

2. Decisions of the Security Council on procedural matters shall be made by an affirmative vote of seven members.

3. Decisions of the Security Council on all other matters shall be made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that, in decisions under Chapter VI and under Paragraph 3 of Article 52 a party to a dispute shall abstain from voting.

Procedure

Article 28

1. The Security Council shall be so organized as to be able to function continuously. Each member of the Security Council shall for this purpose be represented at all times at the seat of the organization.

2. The Security Council shall hold periodic meetings at which each of its members may, if it so desires, be represented by a member of the government or by some other specially designated representative.

3. The Security Council may hold meetings at such places other than the seat of the organization as in its judgment will best facilitate its work.

Article 29

The Security Council may establish such subsidiary organs as it deems necessary for the performance of its functions.

Article 30

The Security Council shall adopt its own rules of procedure, including the method of selecting its president.

Article 31

Any member of the United Nations which is not a member of the Security Council may participate, without vote, in the discussion of any question brought before the Security Council whenever the latter considers that the interests of that member are specially affected.

Article 32

Any member of the United Nations which is not a member of the Security

Council or any state which is not a member of the United Nations, if it is a party to a dispute under consideration by the Security Council, shall be invited to participate, without vote, in the discussion relating to the dispute. The Security Council shall lay down such conditions as it deems just for the participation of a state which is not a member of the United Nations.

CHAPTER VI

Pacific Settlement of Disputes

Article 33

1. The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

2. The Security Council shall, when it deems necessary, call upon the parties to settle their dispute by such means.

Article 34

The Security Council may investigate any dispute, or any situation which might lead to international friction or give rise to a dispute, in order to determine whether the continuance of the dispute or situation is likely to endanger the maintenance of international peace and security.

Article 35

1. Any member of the United Nations may bring any dispute or any situation of the nature referred to in Article 34 to the attention of the Security Council or of the General Assembly.

2. A state which is not a member of the United Nations may bring to the attention of the Security Council or of the General Assembly any dispute to which it is a party if it accepts in advance, for the purposes of the dispute, the obligations of pacific settlement provided in the present Charter.

3. The proceedings of the General Assembly in respect of matters brought to its attention under this Article will be subject to the provisions of Articles 11 and 12.

Article 36

1. The Security Council may, at any stage of a dispute of the nature referred to in Article 33 or of a situation of like nature, recommend appropriate procedures or methods of adjustment.

2. The Security Council should take into consideration any procedures for the settlement of the dispute which have already been adopted by the parties.

3. In making recommendations under this Article the Security Council should also take into consideration that legal disputes should as a general rule be referred by the parties to the International Court of Justice in accordance with the provisions of the statute of the Court.

Article 37

1. Should the parties to a dispute of the nature referred to in Article 33 fail to settle it by the means indicated in that Article, they shall refer it to the Security Council.

2. If the Security Council deems that the continuance of the dispute is in fact likely to endanger the maintenance of international peace and security, it shall decide whether to take action under Article 36 or to recommend such terms of settlement as it may consider appropriate.

Article 38

Without prejudice to the provisions of Articles 33 to 37 the Security Council may, if all the parties to any dispute so request, make recommendations to the parties with a view to a pacific settlement of the dispute.

CHAPTER VII

Action with Respect to Threats to the Peace, Breaches of the Peace, and Acts of Aggression

Article 39

The Security Council shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall make recommendations, or decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security.

Article 40

In order to prevent an aggravation of the situation, the Security Council may, before making the recommendations or deciding upon the measures provided for in Article 39, call upon the parties concerned to comply with such provisional measures as it deems necessary or desirable. Such provisional measures shall be without prejudice to the rights, claims, or position of the parties concerned. The Security Council shall duly take account of failure to comply with such provisional measures.

Article 41

The Security Council may decide what measures not involving the use of armed force are to be employed to give effect

to its decisions, and it may call upon members of the United Nations to apply such measures. These may include complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communication, and the severance of diplomatic relations.

Article 42

Should the Security Council consider that measures provided for in Article 41 would be inadequate, or have proved to be inadequate, it may take such action by air, sea or land forces as may be necessary to maintain or restore international peace and security. Such action may include demonstrations, blockade, and other operations by air, sea or land forces of members of the United Nations.

Article 43

1. All members of the United Nations, in order to contribute to the maintenance of international peace and security, undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance, and facilities, including rights of passage, necessary for the purpose of maintaining international peace and security.

2. Such agreement or agreements shall govern the numbers and types of forces, their degree of readiness and general location, and the nature of the facilities and assistance to be provided.

3. The agreement or agreements shall be negotiated as soon as possible on the initiative of the Security Council. They shall be concluded between the Security Council and members or between the Security Council and groups of members and shall be subject to ratification by the signatory states in accordance with their respective constitutional processes.

Article 44

When the Security Council has decided to use force it shall, before calling upon a member not represented on it to provide armed forces in fulfillment of the obligations assumed under Article 43, invite that member, if the member so desires, to participate in the decisions of the Security Council concerning the employment of contingents of that member's armed forces.

Article 45

In order to enable the United Nations to take urgent military measures, members shall hold immediately available national air force contingents for combined international enforcement action. The strength and degree of readiness of these contingents and plans for their combined action shall be determined, within the limits laid down in the special agreement or agreements referred to in Article 43, by the Security Council with the assistance of the Military Staff Committee.

Article 46

Plans for the application of armed force shall be made by the Security Council with the assistance of the Military Staff Committee.

Article 47

1. There shall be established a Military Staff Committee to advise and assist the Security Council on all questions relating to the Security Council's military requirements for the maintenance of international peace and security, the employment and command of forces placed at its disposal, the regulation of armaments, and possible disarmament.

2. The Military Staff Committee shall consist of the Chiefs of Staff of the permanent members of the Security Council or their representatives. Any member of the United Nations not permanently represented on the Committee shall be invited by the Committee to be associated with it when the efficient discharge of the Committee's responsibilities requires the participation of that member in its work.

3. The Military Staff Committee shall be responsible, under the Security Council, for the strategic direction of any armed forces placed at the disposal of the Security Council. Questions relating to the command of such forces shall be worked out subsequently.

4. The Military Staff Committee, with the authorization of the Security Council and after consultation with appropriate regional agencies, may establish regional subcommittees.

Article 48

1. The action required to carry out the decisions of the Security Council for the maintenance of international peace and security shall be taken by all the members of the United Nations, or by some of them, as the Security Council may determine.

2. Such decisions shall be carried out by the members of the United Nations directly and through their action in the appropriate international agencies of which they are members.

Article 49

The members of the United Nations shall join in affording mutual assistance in carrying out the measures decided upon by the Security Council.

Article 50

If preventive or enforcement measures against any state are taken by the Security Council, any other state, whether a

member of the United Nations or not, which finds itself confronted with special economic problems arising from the carrying out of those measures shall have the right to consult the Security Council with regard to a solution of those problems.

Article 51

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense, if an armed attack occurs against a member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security. Measures taken by members in the exercise of this right of self-defense shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace and security.

CHAPTER VIII

Regional Arrangements

Article 52

1. Nothing in the present Charter precludes the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such arrangements or agencies and their activities are consistent with the purposes and principles of the organization.

2. The members of the United Nations entering into such arrangements or constituting such agencies shall make every effort to achieve pacific settlement of local disputes through such regional arrangements or by such regional agencies before referring them to the Security Council.

3. The Security Council shall encourage the development of pacific settlement of local disputes through such regional arrangements or by such regional agencies either on the initiative of the states concerned or by reference from the Security Council.

4. This Article in no way impairs the application of Articles 34 and 35.

Article 53

1. The Security Council shall, where appropriate, utilize such regional arrangements or agencies for enforcement action under its authority. But no enforcement action shall be taken under regional arrangements or by regional agencies without the authorization of the Security Council, with the exception of measures against any enemy state, as defined in Paragraph 2 of this Article, provided for pursuant to Article 107, or in regional arrangements directed against renewal of aggressive policy on the part of any such state, until such time as the organization may, on request of the governments concerned, be charged with the responsibility for preventing further aggression by such a state.

2. The term enemy state as used in Paragraph 1 of this Article applies to any state which during the second World War has been an enemy of any signatory of the present Charter.

Article 54

The Security Council shall at all times be kept fully informed of activities undertaken, or in contemplation, under regional arrangements or by regional agencies for the maintenance of international peace and security.

CHAPTER IX

International Economic and Social Co-operation

Article 55

With a view to the creation of conditions of stability and well-being which are necessary for peaceful and friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, the United Nations shall promote:

(a) Higher standards of living, full employment, and conditions of economic and social progress and development;

(b) Solutions of international economic, social, health, and related problems; and international cultural and educational co-operation; and

(c) Universal respect for, and observance of, human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion.

Article 56

All members pledge themselves to take joint and separate action in co-operation with the organization for the achievement of the purposes set forth in Article 55.

Article 57

1. The various specialized agencies, established by inter-governmental agreement and having wide international responsibilities, as defined in their basic instruments in economic, social, cultural, educational, health and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

2. Such agencies thus brought into relationship with the United Nations are

hereinafter referred to as specialized agencies.

Article 58

The organization shall make recommendations for the coordination of the policies and activities of the specialized agencies.

Article 59

The organization shall, where appropriate, initiate negotiations among the states concerned for the creation of any new specialized agencies required for the accomplishment of the purposes set forth in Article 55.

Article 60

Responsibility for the discharge of the functions of the organization set forth in this Chapter shall be vested in the General Assembly and, under the authority of the General Assembly, in the Economic and Social Council, which shall have for this purpose the powers set forth in Chapter X.

CHAPTER X

Economic and Social Council

Composition

Article 61

1. The Economic and Social Council shall consist of eighteen members of the United Nations elected by the General Assembly.

2. Subject to the provisions of Paragraph 3, six members of the Economic and Social Council shall be elected each year for a term of three years. A retiring member shall be eligible for immediate reelection.

3. At the first election, eighteen members of the Economic and Social Council shall be chosen. The term of office of six members so chosen shall expire at the end of one year, and of six other members at the end of two years, in accordance with arrangements made by the General Assembly.

4. Each member of the Economic and Social Council shall have one representative.

Functions and Powers

Article 62

1. The Economic and Social Council may make or initiate studies and reports with respect to international economic, social, cultural, educational, health, and related matters and may make recommendations with respect to any such matters to the General Assembly, to the members of the United Nations, and to the specialized agencies concerned.

2. It may make recommendations for the purpose of promoting respect for, and observance of, human rights and fundamental freedoms for all.

3. It may prepare draft conventions for submission to the General Assembly, with respect to matters falling within its competence.

4. It may call, in accordance with the rules prescribed by the United Nations, international conferences on matters falling within its competence.

Article 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may coordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the members of the United Nations.

Article 64

1. The Economic and Social Council may take appropriate steps to obtain regular reports from the specialized agencies. It may make arrangements with the members of the United Nations and with the specialized agencies to obtain reports on the steps taken to give effect to its own recommendations and to recommendations on matters falling within its competence made by the General Assembly.

2. It may communicate its observations on these reports to the General Assembly.

Article 65

The Economic and Social Council may furnish information to the Security Council and shall assist the Security Council upon its request.

Article 66

1. The Economic and Social Council shall perform such functions as fall within its competence in connection with the carrying out of the recommendations of the General Assembly.

2. It may, with the approval of the General Assembly, perform services at the request of members of the United Nations and at the request of the specialized agencies.

3. It shall perform such other functions as are specified elsewhere in the present Charter or as may be assigned to it by the General Assembly.

Voting

Article 67

1. Each member of the Economic and Social Council shall have one vote.

2. Decisions of the Economic and Social Council shall be made by a majority of the members present and voting.

Procedure

Article 68

The Economic and Social Council shall set up commissions in economic and social fields and for the promotion of human rights, and such other commissions as may be required for the performance of its functions.

Article 69

The Economic and Social Council shall invite any member of the United Nations to participate, without vote, in its deliberations on any matter of particular concern to that member.

Article 70

The Economic and Social Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Article 71

The Economic and Social Council may make suitable arrangements for consultation with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations, and, where appropriate, with national organizations after consultation with the member of the United Nations concerned.

Article 72

1. The Economic and Social Council shall adopt its own rules of procedure, including the method of selecting its president.

2. The Economic and Social Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

CHAPTER XI

Declaration Regarding Non-Self-Governing Territories

Article 73

Members of the United Nations which have or assume responsibilities for the administration of territories whose peoples have not yet attained a full measure of self-government recognize the principle that the interests of the inhabitants of these territories are paramount, and accept as a sacred trust the obligation to promote to the utmost, within the system of international peace and security established by the present Charter, the well-being of the inhabitants of these territories, and, to this end:

(a) To insure, with due respect for the culture of the peoples concerned, their political, economic, social, and educational advancement, their just treatment, and their protection against abuses;

(b) To develop self-government, to take due account of the political aspirations of the peoples, and to assist them in the progressive development of their free political institutions, according to the particular circumstances of each territory and its peoples and their varying stages of advancement;

(c) To further international peace and security;

(d) To promote constructive measures of development, to encourage research, and to co-operate with one another and, when and where appropriate, with specialized international bodies with a view to the practical achievement of the social, economic and scientific purposes set forth in this Article; and

(e) To transmit regularly to the Secretary-General for information purposes, subject to such limitation as security and constitutional considerations may require, statistical and other information of a technical nature relating to economic, social, and educational conditions in the territories for which they are respectively responsible other than those territories to which Chapters XII and XIII apply.

Article 74

Members of the United Nations also agree that their policy in respect of the territories to which this Chapter applies, no less than in respect of their metropolitan areas, must be based on the general principle of good-neighborliness, due account being taken of the interests and well-being of the rest of the world in social, economic and commercial matters.

CHAPTER XII

International Trusteeship System

Article 75

The United Nations shall establish under its authority an international trusteeship system for the administration and supervision of such territories as may be placed thereunder by subsequent individual agreements. These territories are hereinafter referred to as trust territories.

Article 76

The basic objectives of the trusteeship system in accordance with the purposes

of the United Nations laid down in Article 1 of the present Charter, shall be:

(a) To further international peace and security;

(b) To promote the political, economic, social and educational advancement of the inhabitants of the trust territories, and their progressive development toward self-government or independence as may be appropriate to the particular circumstances of each territory and its peoples and the freely expressed wishes of the peoples concerned, and as may be provided by the terms of each trusteeship agreement;

(c) To encourage respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language or religion, and to encourage recognition of the interdependence of the peoples of the world; and

(d) To insure equal treatment in social, economic and commercial matters for all members of the United Nations and their nationals, and also equal treatment for the latter in the administration of justice, without prejudice to the attainment of the foregoing objectives, and subject to the provisions of Article 80.

Article 77

1. The trusteeship system shall apply to such territories in the following categories as may be placed thereunder by means of trusteeship agreements:

(a) Territories now held under mandate;

(b) Territories which may be detached from enemy states as a result of the second World War; and

(c) Territories voluntarily placed under the system by states responsible for their administration.

2. It will be a matter for subsequent agreement as to which territories in the foregoing categories will be brought under the trusteeship system and upon what terms.

Article 78

The trusteeship system shall not apply to territories which have become members of the United Nations, relationship among which shall be based on respect for the principle of sovereign equality.

Article 79

The terms of trusteeship for each territory to be placed under the trusteeship system, including any alteration or amendment, shall be agreed upon by the states directly concerned, including the mandatory power in the case of territories held under mandate by a member of the United Nations, and shall be approved as provided for in Articles 83 and 85.

Article 80

1. Except as may be agreed upon in individual trusteeship agreements, made under Articles 77, 79 and 81, placing each territory under the trusteeship system, and until such agreements have been concluded, nothing in this Chapter shall be construed in or of itself to alter in any manner the rights whatsoever of any states or any peoples or the terms of existing international instruments to which members of the United Nations may respectively be parties.

2. Paragraph 1 of this Article shall not be interpreted as giving grounds for delay or postponement of the negotiation and conclusion of agreements for placing mandated and other territories under the trusteeship system as provided for in Article 77.

Article 81

The trusteeship agreement shall in each case include the terms under which the trust territory will be administered and designate the authority which will exercise the administration of the trust territory. Such authority, hereinafter called the administering authority, may be one or more states or the organization itself.

Article 82

There may be designated, in any trusteeship agreement, a strategic area or areas which may include part or all of the trust territory to which the agreement applies, without prejudice to any special agreement or agreements made under Article 43.

Article 83

1. All functions of the United Nations relating to strategic areas, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the Security Council.

2. The basic objectives set forth in Article 76 shall be applicable to the people of each strategic area.

3. The Security Council shall, subject to the provisions of the trusteeship agreements and without prejudice to security considerations, avail itself of the assistance of the Trusteeship Council to perform those functions of the United Nations under the trusteeship system relating to political, economic, social and educational matters in the strategic areas.

Article 84

It shall be the duty of the administering authority to insure that the trust territory shall play its part in the maintenance of international peace and security. To this end the administering authority may make use of volunteer forces, facili-

ties, and assistance from the trust territory in carrying out the obligations toward the Security Council undertaken in this regard by the administering authority, as well as for local defense and the maintenance of law and order within the trust territory.

Article 85

1. The functions of the United Nations with regard to trusteeship agreements for all areas not designated as strategic, including the approval of the terms of the trusteeship agreements and of their alteration or amendment, shall be exercised by the General Assembly.

2. The Trusteeship Council, operating under the authority of the General Assembly, shall assist the General Assembly in carrying out these functions.

CHAPTER XIII

The Trusteeship Council

Composition

Article 86

1. The Trusteeship Council shall consist of the following members of the United Nations:

(a) Those members administering trust territories;

(b) Such of those members mentioned by name in Article 23 as are not administering trust territories; and

(c) As many other members elected for three-year terms by the General Assembly as may be necessary to insure that the total number of members of the Trusteeship Council is equally divided between those members of the United Nations which administer trust territories and those which do not.

2. Each member of the Trusteeship Council shall designate one specially qualified person to represent it therein.

Functions and Powers

Article 87

The General Assembly and, under its authority, the Trusteeship Council, in carrying out their functions, may:

(a) Consider reports submitted by the administering authority;

(b) Accept petitions and examine them in consultation with the administering authority;

(c) Provide for periodic visits to the respective trust territories at times agreed upon with the administering authority; and

(d) Take these and other actions in conformity with the terms of the trusteeship agreements.

Article 88

The trusteeship Council shall formulate a questionnaire on the political, economic, social and educational advancement of the inhabitants of each trust territory, and the administering authority for each trust territory within the competence of the General Assembly shall make an annual report to the General Assembly upon the basis of such questionnaire.

Voting

Article 89

1. Each member of the Trusteeship Council shall have one vote.

2. Decisions of the Trusteeship Council shall be made by a majority of the members present and voting.

Procedure

Article 90

1. The Trusteeship Council shall adopt its own rules of procedure, including the method of selecting its president.

2. The Trusteeship Council shall meet as required in accordance with its rules, which shall include provision for the convening of meetings on the request of a majority of its members.

Article 91

The Trusteeship Council shall, when appropriate, avail itself of the assistance of the Economic and Social Council and of the specialized agencies in regard to matters with which they are respectively concerned.

CHAPTER XIV

The International Court of Justice

Article 92

The International Court of Justice shall be the principal judicial organ of the United Nations. It shall function in accordance with the annexed statute, which is based upon the statute of the Permanent Court of International Justice and forms an integral part of the present Chapter.

Article 93

1. All members of the United Nations are ipso facto parties to the statute of the International Court of Justice.

2. A state which is not a member of the United Nations may become a party to the statute of the International Court of Justice on conditions to be determined in each case by the General Assembly upon the recommendation of the Security Council.

Article 94

1. Each member of the United Nations undertakes to comply with the decision of

the International Court of Justice in any case to which it is a party.

2. If any party to a case fails to perform the obligations incumbent upon it under a judgment rendered by the Court, the other party may have recourse to the Security Council, which may, if it deems necessary, make recommendations or decide upon measures to be taken to give effect to the judgment.

Article 95

Nothing in the present Charter shall prevent members of the United Nations from entrusting the solution of their differences to other tribunals by virtue of agreements already in existence or which may be concluded in the future.

Article 96

1. The General Assembly or the Security Council may request the International Court of Justice to give an advisory opinion on any legal question.

2. Other organs of the United Nations and specialized agencies which may at any time be so authorized by the General Assembly, may also request advisory opinions of the Court on legal questions arising within the scope of their activities.

CHAPTER XV

The Secretariat

Article 97

The Secretariat shall comprise a Secretary General and such staff as the organization may require. The Secretary General shall be appointed by the General Assembly upon the recommendation of the Security Council. He shall be the chief administrative officer of the organization.

Article 98

The Secretary General shall act in that capacity in all meetings of the General Assembly, of the Security Council, of the Economic and Social Council and of the Trusteeship Council, and shall perform such other functions as are entrusted to him by these organs. The Secretary General shall make an annual report to the General Assembly on the work of the organization.

Article 99

The Secretary General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security.

Article 100

1. In the performance of their duties the Secretary General and the staff shall not seek or receive instructions from any government or from any other authority external to the organization. They shall refrain from any action which might reflect on their position as international officials responsible only to the organization.

2. Each member of the United Nations undertakes to respect the exclusively international character of the responsibilities of the Secretary General and the staff, and not to seek to influence them in the discharge of their responsibilities.

Article 101

1. The staff shall be appointed by the Secretary General under regulations established by the General Assembly.

2. Appropriate staffs shall be permanently assigned to the Economic and Social Council, the Trusteeship Council, and, as required, to other organs of the United Nations. These staffs shall form a part of the Secretariat.

3. The paramount consideration in the employment of the staff and in the determination of the conditions of service shall be the necessity of securing the highest standards of efficiency, competence and integrity. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible.

CHAPTER XVI

Miscellaneous Provisions

Article 102

1. Every treaty and every international agreement entered into by any member of the United Nations after the present Charter comes into force shall as soon as possible be registered with the Secretariat and published by it.

2. No party to any such treaty or international agreement which has not been registered in accordance with the provisions of Paragraph 1 of this Article may invoke that treaty or agreement before any organ of the United Nations.

Article 103

In the event of a conflict between the obligations of the members of the United Nations under the present Charter and their obligations under any other international agreement, their obligations under the present Charter shall prevail.

Article 104

The organization shall enjoy in the territory of each of its members such legal capacity as may be necessary for the exercise of its functions and the fulfillment of its purposes.

Article 105

1. The organization shall enjoy in the territory of each of its members such privileges and immunities as are necessary for the fulfillment of its purposes.

2. Representatives of the members of the United Nations and officials of the organization shall similarly enjoy such privileges and immunities as are necessary for the independent exercise of their functions in connection with the organization.

3. The General Assembly may make recommendations with a view to determining the details of the application of Paragraphs 1 and 2 of this Article or may propose conventions to the members of the United Nations for this purpose.

CHAPTER XVII

Transitional Security Arrangements

Article 106

Pending the coming into force of such special agreements referred to in Article 43, as in the opinion of the Security Council enable it to begin the exercise of its responsibilities under Article 42, the parties to the Four-Nation Declaration, signed at Moscow, Oct. 30, 1943, and France, shall, in accordance with the provisions of Paragraph 5 of that Declaration, consult with one another and, as occasion requires, with other members of the United Nations with a view to such joint action on behalf of the organization as may be necessary for the purpose of maintaining international peace and security.

Article 107

Nothing in the present Charter shall invalidate or preclude action in relation to any state which during the second World War has been an enemy of any signatory to the present Charter, taken or authorized as a result of that war by the governments having responsibility for such action.

CHAPTER XVIII

Amendments

Article 108

Amendments to the present Charter shall come into force for all members of the United Nations when they have been adopted by a vote of two-thirds of the members of the General Assembly and ratified in accordance with their respective constitutional processes by two-thirds of the members of the United Nations, including all the permanent members of the Security Council.

Article 109

1. A general conference of the members of the United Nations for the purpose of reviewing the present Charter may be held at a date and place to be fixed by a two-thirds vote of the members of the General Assembly and by a vote of any seven members of the Security Council. Each member of the United Nations shall have one vote in the conference.

2. Any alteration of the present Charter recommended by a two-thirds vote of the conference shall take effect when ratified in accordance with their respective constitutional processes by two-thirds of the members of the United Nations including all the permanent members of the Security Council.

3. If such a conference has not been held before the tenth annual session of the General Assembly following the coming into force of the present Charter, the proposal to call such a conference shall be placed on the agenda of that session of the General Assembly, and the conference shall be held if so decided by a majority vote of the members of the General Assembly and by a vote of any seven members of the Security Council.

CHAPTER XIX

Ratification and Signature

Article 110

1. The present Charter shall be ratified by the signatory states in accordance with their respective constitutional processes.

2. The ratifications shall be deposited with the Government of the United States of America, which shall notify all the signatory states of each deposit as well as the Secretary General of the organization when he has been appointed.

3. The present Charter shall come into force upon the deposit of ratifications by the Republic of China, France, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, and by a majority of the other signatory states. A protocol of the ratifications deposited shall thereupon be drawn up by the Government of the United States of America which shall communicate copies thereof to all the signatory states.

4. The states signatory to the present Charter which ratify it after it has come into force will become original members of the United Nations on the date of the deposit of their respective ratifications.

Article 111

The present Charter, of which the Chinese, French, Russian, English and Spanish texts are equally authentic, shall remain deposited in the archives of the Government of the United States of America. Duly certified copies thereof shall be transmitted by that Government to the Governments of the other signatory states.

In faith whereof the representatives of the Governments of the United Nations have signed the present Charter.

Done at the city of San Francisco the twenty-sixth day of June, one thousand nine hundred and forty-five.

CHRONOLOGY

★

GREAT HISTORICAL EVENTS

Compiled by

ENCYCLOPAEDIA BRITANNICA

Before the Christian Era—(B.C.)

5000–4000—Advanced stage of civilization in Egypt and Mesopotamia.

2000 (?)—Indo-Europeans invade northern Greece.

1700–1300—Rivalry between Assyria and Babylonia for control of western Asia.

1300 (?)—Moses leads Jews out of Egypt.

1194–1184 (?)—Trojan War: Greeks emerge supreme after legendary siege of Troy.

753—Legendary founding of Rome by Romulus.

500–400—Rise of Maya civilization in Mexico.

499–479—Persian Wars: Persians, in expeditions against Greece, fail in efforts at subjugation.

431–404—Peloponnesian War: Spartans, under Lysander, take Athens to become supreme in Greece.

390—Barbarian Gauls sack Rome.

340—Rome assumes ascendancy over towns of Italy.

334–330—Alexander the Great conquers Greece, Persia, Egypt, and part of India.

264–146—Punic Wars: Romans, in campaigns against Carthaginians, seize Sicily and Spain and destroy Carthage (later rebuilt by Romans, destroyed by Arabs in 698 A.D.)

58–51—Caesar defeats Gauls and Germans.

45—Caesar becomes dictator for life.

44—Caesar assassinated; Mark Antony seizes Rome.

31—Octavius defeats Antony, conquers Egypt.

30—Suicides of Antony and Cleopatra.

27—Octavius becomes Emperor Augustus; Roman Empire established.

4 (?)—Birth of Christ (according to many historians).

The Christian Era—(A.D.)

29 (?)—Crucifixion of Christ.

78—Agricola conquers Britain.

247—Goths begin invasion of Europe.

306—Constantine the Great, first Christian Emperor, defeats the Franks.

330—Constantine makes Constantinople the seat of the Roman Empire.

400—Goths under Alaric invade Italy.

410—Sack of Rome by Alaric.

451—Battle of Châlons: Huns under Attila defeated by Romans.

476—Fall of Rome; traditional date dividing ancient and medieval history.

622—Hegira (flight of Mohammed from Mecca). After Mohammed's death in 632, Moslems sweep over much of western Asia and northern Africa.

711—Moslems cross into Spain.

732—Charles Martel defeats Moslems in Battle of Tours (or Poitiers).

800—Charlemagne crowned first emperor of Holy Roman Empire; Christianity established over much of Europe.

1066—Battle of Hastings: William the Conqueror successfully invades England.

1096–1291—The Crusades: European Christians, in seven periods of conflict, oppose the Moslems and Turks, developing commerce and extending Christianity.

1206—Mongolian Empire established by Genghis Khan.

1215—Magna Carta proclaimed.

1260–92—Kublai Khan establishes sovereignty in China.

1338–1453—Hundred Years' War: England loses lands in France.

1431—Joan of Arc burned at the stake.

1453—Turks capture Constantinople.

1455–85—Wars of the Roses: House of York against House of Lancaster; Richard III slain at Battle of Bosworth Field (1485); Tudor line started by Henry VII.

1492—Moors driven out of Spain. ¶ Christopher Columbus discovers America (West Indies).

1517—Beginning of Reformation in Germany.

1558–1603—Elizabeth is queen of England.

1571—Battle of Lepanto: Don John of Austria routs Turkish fleet.

1588—Spanish Armada destroyed by British.

1607—Jamestown, Va., settled by English under Capt. John Smith.

1618–48—Thirty Years' War: England, Holland, France, Sweden and German Protestants against Spain, Italy and German Catholics; Peace of Westphalia ends conflict, Alsace going to France, Swiss independence being recognized, and German secularized states being given religious freedom.

1619—First representative assembly in America at Jamestown, Va. ¶ First Negro slaves land at Jamestown from Dutch ship.

1620—Pilgrims land at Plymouth Rock.

1642–52—Great Rebellion: civil wars in England lasting from 1642 to 1646 and from 1648 to 1652; Charles I executed; Oliver Cromwell establishes commonwealth.

1644—Manchu Dynasty established in China, lasting until 1912.

1660—Monarchy restored in England under Charles II.

1665—The Great Plague in London.

1704—British capture Gibraltar from Spain.

1707—Scotland and England united.

1709—Battle of Poltava: Russians under Peter the Great defeat Swedes under Charles XII.

1756–63—Seven Years' War: France, Austria, Sweden, and Russia against England and Prussia; Clive defeats French at Battle of Plassey (1757), marking beginning of British supremacy in India; England wins Canada; Prussia retains Silesia. (American phase known as French and Indian War—1754–60).

1765—Stamp Act passed by British Parliament; Stamp Act Congress in New York threatens boycott unless repealed.

1770—The Boston Massacre (March 5).

1773—Boston Tea Party (Dec. 16).

1774—First Continental Congress, Philadelphia (Sept. 5).

1775–83—American Revolution. Outstanding events: 1775—Battle of Lexington-Concord (April 19). Battle of Bunker Hill (June 17). 1776—Declaration of American Independence (July 4). Battle of Long Island (Aug. 27). 1777—Congress adopts Stars and Stripes (June 14). Battle of Brandywine (Sept. 11). Battle of Germantown (Oct. 4). Burgoyne surrenders at Saratoga (Oct. 17). 1778—Battle of Monmouth (June 28). Capture of Kaskaskia (July 4). 1779—Battle of Savannah (Oct. 8–9). 1780—Major André hanged as spy (Oct. 2). Battle of Kings Mountain (Oct. 7). 1781—Battle of Cowpens (Jan. 17). Battle of Yorktown (Sept. 28–Oct. 19) and British surrender by Lord Cornwallis. 1783—Peace treaty signed by U. S. and Great Britain (Sept. 3).

1787—U. S. Constitution drawn up at Philadelphia (May 14).

1789—First U. S. Congress meets in New York City (Mar. 4); first session begins (April 6). Washington elected first President (April 6) and is inaugurated (April 30).

1789–99—French Revolution. Outstanding events: 1789—Bastille destroyed (July 14). 1792—War with Prussia. France declared republic (Sept. 21). 1793—Louis XVI and Queen Marie Antoinette beheaded. Beginning of Reign of Terror. 1795—Napoleon Bonaparte heads army. Peace with Prussia. Directory established (Oct. 27). (Revolution merges into Napoleonic Wars.)

1792—Trial of Warren Hastings, British administrator in India.

1796–1815—Napoleonic Wars. Outstanding events: 1796—War in Italy. 1798—Campaign in Egypt. 1799—Napoleon made first Consul of French republic. 1804—Napoleon crowned emperor (Dec. 2). 1805—Nelson defeats French in Battle of Trafalgar (Oct. 21). French defeat Russians and Austrians in Battle of Austerlitz (Dec. 2). 1812—French defeat Russians in Battle of Borodino (Sept. 7). 1813—French defeated in Battle of Leipzig (Oct. 16–19). 1814—Napoleon abdicates (April 11), sent to Elba. Louis XVIII becomes King of France. First Treaty of Paris (May 30). 1815—Napoleon flees Elba (Feb. 26). Conclusion of Congress of Vienna (June 9). Napoleon defeated in Battle of Waterloo (June 18). Second Treaty of Paris (Nov. 20).

1800—Britain and Ireland united.

1803—Louisiana Purchase.

1804–06—Journey of Lewis and Clark overland to U. S. Northwest.

1812–14—War of 1812. Outstanding events: 1812—Declaration of War by U. S

(June 18). Fort Dearborn (Chicago) Massacre by Indian allies of British (Aug. 15). Detroit surrenders to British (Aug. 15). 1814—British burn White House at Washington. Battle of Plattsburgh won by Americans (Sept. 11). U. S. signs treaty with Britain at Ghent, Belgium (Dec. 24). 1815—Battle of New Orleans (Jan. 8). (Slowness of communications was responsible for continuation of hostilities after treaty.)

1815—Holy Alliance formed (Sept. 26) by Russia, Austria and Prussia; intended to regulate government according to Christianity but was used for repressing political liberty.

1819—Florida purchased from Spain.

1820—Missouri Compromise permits slavery in that state.

1823—Monroe Doctrine proclaims that no European power may seize territory or set up a government on American continents.

1830—Revolt in France; Charles X flees; Louis Philippe becomes king.

1832—South Carolina nullifies U. S. protective tariff law.

1836—Battle of the Alamo (March 6): Texas declares its independence from Mexico.

1846–48—Mexican War: boundary dispute between U. S. and Mexico; by Treaty of Guadalupe Hidalgo (1848), Mexico cedes Calif., Nev., and Utah to U. S.; Texas boundary set at Rio Grande.

1848—French depose Louis Philippe, set up Second Republic under Louis Napoleon. ¶ *Communist Manifesto* issued by Marx and Engels.

1852—Louis Napoleon sets up second empire and takes title of Napoleon III.

1853–56—Crimean War: Russia loses claim to Greek Christians under Turkish flag.

1857—Dred Scott decision of U. S. Supreme Court (March 6) holds that a Negro slave is not a citizen.

1858—Lincoln-Douglas debates in Illinois.

1859—John Brown's raid on Harpers Ferry (Oct. 16).

1860—South Carolina secedes (Dec. 20).

1861—Seceding states proclaim Confederacy; Jefferson Davis named president (Feb. 9). ¶ First Italian parliament (Feb. 18); Victor Emmanuel II made king. ¶ Serfdom abolished in Russia.

1861–65—American Civil War. Outstanding events: 1861—Battle of Bull Run (July 21). 1862—Battle of *Monitor* and *Merrimac* (March 9). Battle of Shiloh (April 6–7). Seven Days battle (June 26–July 2). Battle of Antietam Creek (Sept. 16–17). 1863—Lincoln's Emancipation Proclamation (Jan. 1). Battle of Chancellorsville (May 2–4). Battle of Gettysburg (July 1–3). Grant captures Vicksburg (July 4). Battle of Chickamauga (Sept. 19–20). Battle of Lookout Mountain (Nov. 24–25). 1864—Battle of Wilderness (May 5–6). Battle of Spotsylvania (May). Sherman's march through Georgia (ended Dec. 20). 1865—Lee surrenders at Appomattox (April 9).

1864—International Working Men's Association (First International) founded in London.

1865—Lincoln shot by John Wilkes Booth (April 14, dies April 15).

1867—Alaska bought from Russia by U. S.

1869—Central Pacific and Union Pacific rail lines joined near Ogden, Utah (May 10), completing first transcontinental railroad.

1870–71—Franco-Prussian War: ends with Treaty of Frankfurt (May 10, 1871).

1873—Financial panic in New York.

1876—Battle of the Little Big Horn in Montana: massacre of General Custer's forces by the Sioux (June 25).

1877–78—Russo-Turkish War: power of Turkey in Europe broken; redivision of southeastern Europe at Congress of Berlin (June 13–July 13, 1878).

1881—Alexander II of Russia assassinated by nihilists (March 13). ¶ President Garfield fatally shot (July 2, dies Sept. 19).

1883—Pendleton Act establishes Civil Service Commission and merit system.

1889—Second International formed in Paris.

1894–95—Chinese-Japanese War: Japan wins Formosa.

1898—Spanish-American War. Outstanding events: U. S. battleship *Maine* blown up in Havana harbor (Feb. 15). Dewey destroys Spanish fleet at Manila (May 1). Charge of San Juan Hill (July 1). Cervera's fleet destroyed off Santiago, Cuba, by U. S. ships (July 3). Treaty of Paris signed (Dec. 10) with Spain ceding the Philippines and Puerto Rico.

1899–1902—Boer (South African) War: resistance of Dutch to British government in Transvaal; Boers defeated and sign peace treaty at Pretoria (May 31, 1902).

1899—Filipinos revolt (Feb. 4); U. S. forces capture rebel leader, Aguinaldo (March 23, 1901).

1900—Boxer uprising in China against foreigners and Chinese Christians; foreign legations at Peiping besieged.

1901—President McKinley fatally shot (Sept. 6, dies Sept. 14).

1904–05—Russo-Japanese War: result of conflicts in Manchuria; Port Arthur surrenders to Japanese (Jan. 2, 1905); Treaty of Portsmouth (Sept. 5, 1905).

1912—China becomes republic (Feb. 12).

1912–13—Balkan Wars: Bulgaria, Serbia, Greece, and Montenegro allied successfully against Turkey; later Bulgaria attacks Serbia and Greece and is defeated.

1914—U. S. troops land at Veracruz, Mexico, and occupy city for several months. ¶ Archduke Francis Ferdinand of Austria assassinated (June 28) at Sarajevo by Serbs, precipitating World War I.

1914–18—World War I: Central Powers (Austria-Hungary, Germany, Bulgaria and Turkey) against the Allies (United States, Great Britain, France, Russia, Belgium, Serbia, Greece, Rumania, Montenegro, Portugal, Italy and Japan). Outstanding events: 1914—Austria declares war on Serbia (July 28). Germany declares war on Russia (Aug. 1) and France (Aug. 3). Germans invade Belgium (Aug. 4). Britain declares war on Germany (Aug. 4). Germans defeat Russians at Tannenberg, East Prussia (Aug. 31). First Battle of the Marne (Sept. 6–9). 1915—German U-boat blockade of Great Britain begins. Dardanelles campaign against Turkey fails. 1916—Battle of Jutland (May 31). Battles of the Somme (July–Nov.). Germans turned back at Verdun (Sept. 3). Rumania overrun by Central Powers; fall of Bucharest (Dec. 6). 1917—Germany begins unrestricted submarine warfare. U. S. declares war (April 6). First U. S. troops in France (June 26). British capture Jerusalem (Dec. 9). Battle of Caporetto ends (Dec. 19). 1918—President Wilson's Fourteen Points of Peace speech (Jan. 8). Battle of the Somme (March 21–April 6). Battle of the Aisne (May 27–June 5). Second Battle of the Marne (July 15–Aug. 4). U. S. troops take St. Mihiel (Sept. 13). Battle of the Meuse-Argonne (Sept. 20–Nov. 11). Allies break Hindenburg line (Oct. 5). Armistice signed (Nov. 11).

1917—First phase of Russian Revolution (Mar.): Tsar abdicates (Mar. 15) and is imprisoned; second phase of Revolution (Nov. 7): provisional government of Kerensky is overthrown. ¶ Balfour declaration (Nov. 2) on Jewish homeland in Palestine.

1918—Tsar Nicholas II and his family shot by Bolsheviks (July 16).

1919—The Third International (organization of Communist parties of all nations) founded at Moscow (March). ¶ Treaty of Versailles signed (June 28); U. S. Senate refuses to ratify treaty (Nov. 19).

1920—League of Nations comes into existence (Jan. 10). ¶ Prohibition begins (Jan. 20). ¶ Woman suffrage amendment ratified (Aug. 26).

1921—Resolution declaring peace with Germany and Austria signed by Harding (July 2). ¶ Conference for limitation of armaments meets in Washington, D. C. (Nov. 12).

1922—Irish Free State established (Jan. 15). ¶ Treaty for limitation of naval armaments concluded at Washington by U. S., Britain, France, Italy and Japan (Feb. 6). ¶ First session of World Court (June 15). ¶ Fascist coup in Italy; Mussolini forms cabinet (Oct. 31).

1923—French begin occupation of Ruhr (to 1925). ¶ World Court Protocol rejected by U. S. Senate (Mar. 3). ¶ Munich beer hall putsch led by Hitler put down (Nov. 8–9).

1924—Teapot Dome oil scandals. ¶ Death of Lenin (Jan. 21). ¶ Dawes Plan presented (April 9) to stabilize German currency and regulate annual payments of reparations.

1925—Bryan and Darrow in Scopes evolution trial in Tennessee (July). ¶ Locarno Conference held (Oct.) to insure peace, preserve boundaries.

1926—World Court membership approved by U. S. (Jan. 27) with reservations; reservations rejected by Court. ¶ General strike in Britain (Apr.–Dec.).

1927—Record floods in Mississippi, tributary valleys (Apr.–May). ¶ Lindbergh flies solo across Atlantic (May 20–21). ¶ Sacco, Vanzetti executed (Aug. 23).

1928—Kellogg Peace Pact signed (Aug. 27); 15 nations outlaw war. ¶ First Five-Year Plan begun in U.S.S.R. (Oct. 1).

1929—Lateran Treaty signed (Feb. 11), establishing Vatican City State. ¶ Young Plan completed (June 7) for payment of German reparations. ¶ New York stock market collapses (Oct. 29); depression begins.

1930—Navy pact signed by U. S., Britain, Japan, France and Italy (April 22). ¶ Hawley-Smoot Tariff signed by Hoover (June 17).

1931—Alfonso XIII of Spain abdicates (Apr. 14). ¶ Hoover proposes 1-year war-debt moratorium (June 6). ¶ Japan seizes Mukden, Manchuria (Sept. 19).

1932—Japanese invade Shanghai (Jan. 29). ¶ Bonus Army marches on Washington, D. C. (June–July). ¶ House votes 3.2 beer (Dec. 21).

HEADLINES OF THE YEARS, 1933–1950

Compiled by

THE NEW YORK HERALD TRIBUNE

1933 Roosevelt was in, Hoover out. Roosevelt was fitting Cabinet pieces together, making plans. Hoover was packing his papers. In the long pause from November to March, the rolls of jobless mounted and the nation grew more jittery. From Germany, increasingly turbulent and truculent, the name Adolf Hitler came more and more into the news. It was the year of the NRA and the Blue Eagle and the year Prohibition ended. "The only thing we have to fear is fear itself," said Roosevelt in his inaugural speech.

Jan. 30 Hitler made Chancellor of Germany by Hindenburg.

Feb. 15 F.D.R. escapes death as assassin's bullet fells Mayor Cermak, 59, of Chicago at Miami (dies Mar. 6). Police seize Giuseppe Zangara, fanatic.

27 Reichstag building set afire; Nazis blame Communists.

Mar. 4 Roosevelt inaugurated.

5 Roosevelt proclaims bank holiday; bans hoarding; embargoes gold.

12 President Roosevelt broadcasts first "Fireside Chat."

14 Congress votes 3.2 beer.

15 Exchanges reopen; stocks up.

21 Roosevelt offers plan for 250,000 Civilian Conservation Corps jobs.

23 Reichstag confers blanket powers on Hitler for 4 years.

28 Nazis boycott Jews; order labels on all Jewish stores.

April 19 U. S. goes off gold standard.

May 27 Century of Progress Exposition at Chicago opens.

June 7 Italy, Britain, France, and Germany sign 4-power pact at Rome for ten-year peace.

July 12 Blanket industrial code sets wages at minimum of 40 cents an hour.

Aug. 7 Reich scorns Anglo-French notice to stay out of Austria.

Sept. 13 200,000 New Yorkers participate in 10-hour parade up Fifth Avenue for NRA.

Oct. 14 Hitler bolts League of Nations.

17 Dr. Albert Einstein, refugee from Germany, arrives in United States, settles in Princeton, N. J.

Nov. 7 F. H. LaGuardia elected New York Mayor.

12 Hitler wins 93.4 per cent vote in referendum on Nazi foreign policy.

17 U. S. and Russia resume full relations (as of 11:50 P.M., Nov. 16); Soviet gives list of guaranties including pledge "to refrain from propaganda against the policies or social order of the U. S."

Dec. 5 Prohibition ends in U. S. as Utah, 36th state, ratifies Repeal.

1934 The New Deal delved into the alphabet and came up with multi-lettered agencies. Mr. Roosevelt's resonant voice roused and reassured the nation in fireside chats. The Blue Eagle flapped. People talked about Section 7-A, codes, NRA, CCC, farm relief, cracking down on chiselers, and boondoggling. The little guy (it seemed) was coming into his own at last. Prohibition was finished. The nation enjoyed its first legal alcoholic holiday in fifteen years. New York had double cause to celebrate: Tammany was out in the cold for the first time since 1918.

Jan. 10 Van der Lubbe, Dutch communist, beheaded for Reichstag fire.

11 6 Navy planes reach Hawaii from California in 24¾ hours.

31 Dollar cut to 59.06 cents (gold value).

Feb. 12 France paralyzed by general strike. Civil war in Austria, over 500 dead.

17 Britain, France, Italy send note to Hitler backing Dollfuss government in Austria.

19 Nazis send ultimatum to Dollfuss.

Mar. 15 Samuel Insull, reportedly disguised as woman, flees Athens to evade extradition to U. S.

28 Roosevelt gets first setback in Congress as his veto of independent offices appropriation bill is overridden.

April 13 4,700,000 U. S. families on relief, Hopkins reports.

30 U. S. rejects Japanese claim of hegemony in China.

May 28 Quintuplets born to Mrs. Oliva Dionne, at Corbell, Ont.

June 14 Germany declares six-months moratorium on all foreign debts.
30 Hitler "purge" kills Ernst Roehm and score of other Nazi leaders.
July 24 Heat, drought blanket Midwest "dustbowl"; at least 700 dead.
25 Engelbert Dollfuss, 42, Austrian Chancellor, assassinated.
Aug. 2 Hindenburg, 86, dies; Hitler becomes absolute dictator of Germany.
9 U. S. nationalizes silver, to pay 50.01 cents an ounce.
26 Hitler asks return of Saar, peace with France.
31 Huey Long enters New Orleans with troops; plans to investigate political enemies.
Sept. 20 Bruno Richard Hauptmann arrested for Lindbergh kidnap-slaying.
25 Gen. Hugh Johnson resigns as NRA administrator.
Oct. 6 Catalonia secedes in Spain; Reds riot, civil war threatens.
9 Alexander I of Yugoslavia, 45, and French Foreign Minister Barthou assassinated at Marseilles by Croatian.
Nov. 4 Charles Kingsford-Smith flies first eastward Pacific flight from Honolulu to California in 14 hours, 59 minutes.
Dec. 3 France and Germany sign Saar Treaty at Rome.
5 Russia "purges" [executes] 66 for plotting against Stalin regime.
29 Japan denounces 1922 naval treaty.

1935 In Europe the dictators grew more arrogant. Mussolini cried aloud his dreams of Roman grandeur from the Quirinal balcony. In far-off Ethiopia dark warriors primed muskets and sharpened spears. Hitler eyed Austria and the Ruhr.

But why worry? America was climbing out of the Depression, we hoped; business was stirring and money was channeled through relief rolls to the distressed and the hungry. Except for outraged cries from the Liberty League, the New Deal forged ahead.

Jan. 2 Bruno Richard Hauptmann goes on trial at Flemington, N. J., for kidnap-slaying of the Lindbergh baby.
4 Roosevelt asks 3,500,000 jobs (PWA) to end dole.
7 Oil control provision of NIRA unconstitutional, Supreme Court decides in first New Deal test.
13 Saar plebiscite 90 per cent for reunion with Germany.
29 Senate rejects World Court.
Feb. 10 Rome reports 12-day clash between Italian and Ethiopian troops.
13 Hauptmann guilty.
Mar. 1 Saar is returned to Germany.
6 22,000,000 on U. S. relief rolls.
16 Hitler scraps Versailles Treaty by re-establishing universal military training in Germany.
27 Hitler demands union with Austria, part of Czechoslovakia; wants air force and navy.
April 14 Britain, France, Italy criticize Reich for treaty violation.
May 24 9-year-old George Weyerhauser of wealthy lumber family kidnaped at Tacoma, Wash.
27 Supreme Court unanimously voids NRA.
June 1 Weyerhauser returned after payment of $200,000 ransom.
7 J. Ramsay MacDonald, Labour Prime Minister, resigns; Stanley Baldwin heads new Conservative government in Britain.
10 China yields to Japan in north, surrenders rule over Peiping, Tientsin.
19 Anglo-German naval pact gives U-boat parity.
July 17 More than 80,000 Jews have quit Germany.
Aug. 15 Will Rogers, 55, and Wiley Post, 36, killed in plane crash in Alaska.
21 Senate votes for neutrality, ban on arms sale to belligerents in Ethiopia crisis.
Sept. 8 Huey Long, 42, shot at Louisiana capitol; his assailant killed by guards. Long dies September 10.
15 Jews deprived of citizenship by Nazis; ghettos revived; swastika becomes national flag.
17 Manuel Quezon elected first president of Philippines.
21 Mussolini rejects League's peace plan for Ethiopia.
Oct. 2 Ethiopia invaded.
23 Dutch Schultz shot by gangsters in Newark, N. J., cafe; dies next day.
Nov. 3 King George II recalled to Greek throne in plebiscite.
Dec. 14 Thomas G. Masaryk resigns as President of Czechoslovakia.
22 Anthony Eden becomes England's Foreign Secretary; urges sanctions against Italy.

1936 The fuse was lit in Ethiopia and North China. As war rumbled along those far-off horizons, the U. S. sidled behind a "Neutrality Act" and fought shy of foreign entanglements. This time, we said, we will have no truck with foreign wars. As for domestic conflict, John L. Lewis had just punched Bill Hutcheson in the nose and the boys were choosing up sides for Labor's great civil war between the AFL and CIO. It was, in fact, an exciting time for Labor, what with the generous new Wagner Act and the introduction of the sit-down strike. The New Deal was in the saddle, F.D.R. had signed the Social Security Act and another national election was coming up.

Jan. 6 AAA crop control program declared unconstitutional by the Supreme Court.

20 King George V, of England, dies at 70; Prince of Wales, 41, succeeds to the throne as Edward VIII.

Feb. 17 TVA wins first test of constitutionality as Supreme Court rules Wilson Dam can sell power.

26 Army seizes power in Japan; Tokyo under martial law.

Mar. 7 Hitler sends German troops into the Rhineland, defying Treaty of Versailles; scraps Locarno Pact.

10 France and Belgium insist on military sanctions against Germany.

29 Hitler receives 98.79 per cent vote in German elections.

31 Japanese troops invade Mongolia; Russians angry.

April 3 Bruno Richard Hauptmann electrocuted in Trenton, New Jersey.

May 5 Italian army occupies Addis Ababa; war is over.

9 Dirigible *Hindenburg* docks in Lakehurst, N. J., 61½ hr. after take-off from Friedrichshafen, Ger.

18 Guffey Coal Act found constitutional by Supreme Court.

June 4 500,000 strikers are out as Léon Blum's Socialist government, France's first, takes office.

July 19 Gen. Franco and rebel force land in Spain from North Africa, starting civil war.

Aug. 5 Premier General John Metaxas declares dictatorship in Greece under King George II.

12 Germany agrees to non-intervention in Spain.

Oct. 14 Belgium renounces French alliance, will look to own resources for national safety.

24 Germany, Italy agree to Fascist front against Europe.

Nov. 18 Italy and Germany recognize Franco's regime in Spain.

25 Japan signs anti-Comintern treaty with Germany.

Dec. 11 Edward VIII abdicates.

12 George VI proclaimed King; Edward, as Duke of Windsor, leaves England.

25 Generalissimo Chiang Kai-shek, dictator of China, is released thirteen days after being kidnaped by forces of Marshal Chang, former war lord, in mutiny.

1937 Now Spain was a battleground of weapons and clashing ideas. The Dictators had become a blustering team and there was no one to call their bluff. In Moscow the Kremlin produced a fantastic purge of traitors and weaklings and confused Bolsheviks.

In the U. S. Franklin Roosevelt was about to begin his second term after brushing off the Landon challenge. The Republican party's representation in Congress had dwindled to a handful. A confident F.D.R. was about to launch his scheme against the "Nine Old Men" on the U. S. Supreme Court.

Jan. 2 Britain signs Mediterranean Accord with Italy in effort to split Duce from Hitler.

4 10,000 Italian troops land in Spain.

19 Howard Hughes crosses U. S. in 7 hr., 28 min., 25 sec.

23 17 Moscow defendants confess they helped Trotsky plan to undermine Soviet.

30 Hitler scraps Versailles war guilt clause.

Feb. 2 Sit-down strikers at Flint, Mich., defy Court order to evacuate.

5 Roosevelt asks power to enlarge Supreme Court to 15 Justices; new appointments would offset elderly members who refuse to retire.

Mar. 1 Steel plants raise wages to $5 per day; grant 40-hour week.

22 Hughes, Brandeis, Van Devanter oppose extra Justices as impairing Court's efficiency.

29 Supreme Court backs Washington State Minimum Pay Act for Women.

April 12 Supreme Court upholds Wagner Act.

May 3–5 Italy and Germany agree to help Franco fight on, and attack Madrid anew.

12 George VI crowned in London.

18 Senate committee rejects Roosevelt Court plan, 10–8; Van Devanter, 78, resigns.

24 Social Security upheld by Supreme Court.

28 Neville Chamberlain becomes Prime Minister of Britain, succeeding Baldwin.

June 3 Duke of Windsor, former Edward VIII, weds Wallis Simpson.

July 2 Amelia Earhart Putnam, 38, missing in Pacific in round-the-world flight; Navy ships and planes in search.

22 Senate defeats Court plan, burying it in committee by 70 to 20.

24 Alabama frees 5 of 9 Scottsboro defendants.

Aug. 17 Sen. Hugo Black's appointment to U. S. Supreme Court confirmed; Senate rejects rumors of his Klan affiliation.

23 Japs land at Shanghai; 173 killed as shell explodes in international quarter.

Nov. 29 Britain and France agree to give Hitler colonies in exchange for peace.

Dec. 10 Japanese sack Nanking.

11 Italy quits League over Ethiopia.

12 U. S. gunboat *Panay* sunk by Jap planes.

14 Tokyo apologizes for *Panay*, ousts air chief two days later.

25 U. S. accepts Tokyo apology on *Panay*.

1938 The stock market sagged and slumped, industry was again in the doldrums. Roosevelt blamed a business recession. "Pump priming" was the word in Washington, where they talked of fresh billions to get things moving again.

The President was working on a plan for an enlarged Navy. The program sounded logical, for in Europe the machinery of war gathered momentum ominously, while the democratic nations fumed and hesitated. Hitler's troops were poised for Austria; the stage was set for Munich.

Jan. 28 Roosevelt asks billion dollars for "two-ocean Navy."

Feb. 4 Hitler announces seizure of army control; Ribbentrop becomes Foreign Minister.

16 Austria, yielding to Hitler's threat, puts Nazis in cabinet.

20 Hitler defies foes, says Nazis will protect Germans everywhere.

Anthony Eden resigns as British Foreign Minister, charging Chamberlain seeks to "buy peace."

22 Commons approves Chamberlain policy.

Mar. 4 Rev. Martin Niemöller imprisoned by Nazis.

12 Hitler strikes in Austria; Nazis seize government as army moves in; Schuschnigg ousted.

18 Mexico expropriates foreign oil interests.

29 U. S. protests Mexican oil seizures.

April 10 Austrians vote 99.75 per cent for *Anschluss*.

16 Britain and Italy sign pact to maintain peace.

May 9 League yields, allowing France and Britain to recognize Italy's conquest in Ethiopia, which is proclaimed 3 days later.

June 20 France closes frontier at behest of Britain, halting aid to Spanish Loyalists.

July 4 50,000 jailed in Austria during 3½ months of Nazi terror.

14 Howard Hughes completes flight around world: 3 days, 19 hr., 14 min., 10 sec. (record).

18 Douglas Corrigan lands in Dublin in "wrong way" flight.

Aug. 3 Mexico rejects U. S. protest, cites U. S. New Deal to justify oil seizures.

Sept. 1 Hitler demands autonomy for Sudeten Germans.

5 Prague yields to Nazi pressure on nearly all German demands.

19 Britain and France, after parley, urge Czechs to surrender Sudetenland.

25 Roosevelt appeals to Hitler and Czechs for peaceful settlement of problems.

30 Britain, France, Italy, Germany in parley at Munich agree to dismemberment of Czechoslovakia.

Chamberlain returns to London with "peace in our time."

Oct. 1 Nazi troops cross Czech border; Czechs yield to Polish demand for Teschen.

3 Hitler makes triumphant entry in Sudetenland, and—

5 forces Britain and France to yield more Czech territory in Bohemia.

30 "Attack from Mars" in radio sketch by Orson Welles causes widespread panic.

Nov. 2 Hungary gets slice of Czechoslovakia, too.

10 Assassination of German envoy in Paris by Herschel Grynszpan looses Nazi wrath at Jews over

all Reich; Jews herded into camps; fined $400,000,000 three days later.

Mexico agrees to pay for oil and land seizures.

13 Mother Cabrini first American to be beatified in Vatican.

18 Hitler recalls German Ambassador from U. S. in protest against American anti-Nazi attitude.

23 Jews in Germany fined 20 per cent of all property.

Dec. 6 French, German peace pact signed.

1939

After Munich (Sept. 30, 1938) a murky twilight settled over the world—a time of uneasiness and fear. Britain armed feverishly, the U. S. stepped up plane production. The cause of the Spanish Loyalists disintegrated. Bundists, American Firsters and Communists grew hoarse denouncing warmongers. Congress stood firm for neutrality.

New York was excited about a World's Fair—the World of Tomorrow. While the assorted glamour and gadgets of this bright glimpse of the future were assembling on Flushing Meadow, a very different world was being shaped by forces unleashed in Europe. It was not the World of Tomorrow we expected. In its vast changes, economic and political upheavals, its waste and tumult and pain, it was to surpass the most extravagant forecasts.

Jan. 7 Tom Mooney pardoned.

Feb. 18 Golden Gate International Exposition opens in San Francisco.

27 Franco officially recognized by France and England.

Sit-down strikes outlawed by Supreme Court.

Mar. 2 Cardinal Pacelli elected Pope, becomes Pius XII.

7 UAW secedes from CIO.

12 Pius XII crowned Pope.

14 Slovakia, Ruthenia declare independence; Germany enters Bohemia-Moravia; Hungary enters Ruthenia.

15 Hitler and troops enter Prague.

16 Bohemia-Moravia becomes German protectorate; Hitler assumes protection of Slovakia; Hungary annexes Ruthenia.

22 Lithuania cedes Memel to Germany.

28 Madrid surrenders to Franco.

29 Spanish civil war ends as last 9 of 52 provincial capitals surrender.

31 Britain, France pledge aid if Poland resists a Nazi attack.

April 1 U. S. accords Franco full recognition.

7 Thomas J. Pendergast indicted by U. S. on income tax evasion.

Italian troops invade Albania.

27 House of Commons approves conscription in Great Britain.

28 Hitler scraps war renunciation treaty with Poland and naval limitations pact with England. Demands Danzig, and rebuffs Roosevelt's peace plea.

30 Over half million attend New York World's Fair on opening day.

May 3 Litvinov retires as commissar of foreign affairs, Molotov succeeds him.

5 Poland refuses to yield Danzig to Hitler; offers to negotiate.

22 Germany and Italy sign ten-year military pact.

June 1 Townsend old-age pension plan defeated in House.

5 Supreme Court voids Frank Hague's ban on CIO mass meetings.

13 Heinrich Himmler sent to crush Czech unrest.

21 Lou Gehrig has rare form of infantile paralysis; can never play baseball again.

Aug. 19 German-Russian 7-yr. trade agreement signed.

21 German-Russian 10-yr. nonaggression pact announced (signed Aug. 24).

25 Britain votes war powers to government.

Poland accepts U. S. peace plea; F.D.R. sends 2nd appeal to Hitler.

Polish-British 5-yr. military alliance signed.

26 Daladier asks Hitler for peaceful settlement with Poland.

27 Hitler rejects Daladier appeal, demands Danzig and Corridor.

29 Hitler agrees to negotiations with Poland, asks for Polish delegate by Aug. 30.

31 Germany considers negotiation plan rejected when no Polish delegate appears.

Hitler publishes 16-point peace plan; Poland rejects it.

Sept. 1 Germany invades Poland, annexes Danzig.

Britain, France give Hitler ultimatum to stop hostilities.

3 Britain, France declare war on Germany.

British liner *Athenia* torpedoed off Scotland, sinks next day.

5 U. S. proclaims neutrality.
10 Canada declares war on Germany.
17 Russia invades Poland.
18 Nazi, Russian armies meet at Brest-Litovsk, Pol.
19 Hitler offers peace if Britain, France accept his territorial gains.
20 Britain, France reject Hitler offer.
21 F.D.R. asks Congress to repeal arms embargo.
27 Warsaw surrenders.
28 Nazi-Soviet pact signed; partitions Poland.

Oct. 6 Hitler offers peace on his terms or war of destruction.
9 Germans capture U. S. ship *City of Flint*, take it to Russia.
10 Daladier rejects Hitler peace offer.
12 Chamberlain also rejects Hitler offer.
14 British battleship *Royal Oak* sunk; 800 lost.
18 U. S. closes waters to belligerent submarines.
19 Turkey signs 15-yr. mutual assistance pact with Britain, France; Turkey not obliged to fight Russia.
26 Russia releases *City of Flint*.

Nov. 2 Embargo repeal passed by House.
4 Roosevelt forbids U. S. ships to enter western European, Baltic or North Sea waters.
8 *Life With Father* opens at Empire Theatre, N. Y. C.
Hitler escapes time bomb in Munich beer hall; six killed.
20 Chiang Kai-shek elected President of Executive Yüan; H. H. Kung becomes Vice President.
30 Russia attacks Finland from land, sea and air; bombs Helsinki.

Dec. 1 Roosevelt denounces invasion of Finland as "wanton flouting of law."
5 Fritz Kuhn, Bund leader in U. S., gets 2½ to 5 years for forgery, grand larceny.
10 U. S. lends Finland $10,000,000 as Finns call on world to help beat off Red invader.
11 League of Nations calls on Russia to halt Finnish war in 24 hours.
12 Russia rejects League's demand.
17 *Graf Spee* scuttled off Montevideo by Hitler order after fleeing British warships.
19 Nazi liner *Columbus* scuttled in Atlantic to escape capture.
23 Roosevelt names Myron C. Taylor as peace envoy to Pope Pius XII.
28 Pope Pius XII returns King Victor Emmanuel's visit to the Vatican; first papal visit to Quirinal in more than seventy years.

1940 After the blitz in Poland—stalemate, boredom. It seemed a phony war. The French army moped behind the Maginot Line; German work gangs poured concrete along the Westwall. In London the war correspondents in their new uniforms talked it over like critics at a play, found it dull.

In the U. S. they were playing the "Star-Spangled Banner" in the theaters (*Life With Father* had just opened) and people grew misty-eyed when Kate Smith sang "God Bless America!" Wendell L. Willkie was about to write a short piece on national affairs called *We the People*. A new force was rising to challenge U. S. complacency and disturb the apathy of the American people.

Jan. 3 F.D.R. asks wartime powers, urges higher taxes for defense.
11 Navy's 5-year program calls for 150 ships costing $2,500,000,000.
22 Earl Browder gets 4 years for passport fraud.

Feb. 15 J. P. Morgan & Co. abandons private banking; becomes public corporation April 1.

Mar. 2 Russians, fighting Finland, crack Mannerheim Line, take Viipuri.
7 *Queen Elizabeth*, world's largest ship, comes to New York for safety from Nazi raids.
13 Soviet-Finnish peace terms end war at noon and give Karelian Isthmus, Viipuri to Russia.
17 Murder, Inc., ring of commercialized killers, uncovered in Brooklyn.

April 9 Nazis invade Denmark and Norway; Copenhagen occupied.
15 British land in Norway to combat invader; capture Narvik.

May 10 Nazis invade Netherlands, Belgium, Luxemburg.
Chamberlain resigns, Churchill takes over as Prime Minister.
11 New York World's Fair reopens at Flushing Meadow.
13 Churchill in historic address tells Britain the war means blood, sweat, tears.
14 German bombers raze Rotterdam as Dutch surrender.
16 Roosevelt asks billion for defense, 50,000 airplanes.
Germans rush into France.
28 Belgium surrenders as cabinet disowns Leopold.

28 Dunkerque evacuation of British begins.

31 Three-fourths of British army rescued from Dunkerque beaches; tanks, matériel lost.

June 9 Norway surrenders.

10 Italy declares war on France, Britain; invades France.

15 Germans enter Paris (city undefended).

Russia seizes Lithuania; Latvia, Estonia seized 2 days later.

22 France and Germany sign surrender at Compiègne.

28 Russia seizes Bessarabia from Rumania.

July 12 Britain and Russia sign 20-year mutual-aid pact.

Aug. 8 Luftwaffe launches all-out attack on England.

20 Britain offers to lend sea-air bases to U. S.; asks naval aid.

31 Rumania demobilizes, prepares for Nazi occupation.

Sept. 6 Carol II of Rumania abdicates.

7 Vichy government arrests Gen. Maurice Gamelin, Paul Reynaud, Édouard Daladier.

14 Italians invade Egypt.

23–25 Dakar beats off British-French sea attack; thwarts De Gaulle's invasion attempt.

27 Germany, Italy, Japan sign 10-year military pact.

Oct. 3 H. G. Wells says U. S. should keep out of the war; our party politics would mess up the peace.

4 Hitler, Mussolini meet at Brenner Pass, lay plans for long war.

7 Reichswehr occupies Rumania.

16 U. S. registers 17,000,000 for selective service.

23 Hitler and Franco meet at Hendaye.

24 Hitler and Pétain meet, pledge collaboration.

27 New York World's Fair closes; 45 million paid admissions in 2 years.

28 Italy invades Greece.

Nov. 7 Third largest suspension bridge collapses in high wind at Tacoma, Wash.

11 British air attack smashes Italian fleet at Taranto.

12–13 Viacheslav Molotov at Berlin (first time he ever left Russia); holds two-day talk on Soviet's place in "New Order."

14 Nazis bomb Coventry, leave historic city in ruins.

17 Italians driven off Greek soil.

18 John L. Lewis quits as CIO head, keeping pledge to resign if Roosevelt was re-elected.

20 Hungary joins Axis.

Dec. 1 Gen. Manuel Avila Camacho sworn in as President of Mexico.

5 British House of Commons rejects proposal for negotiated peace.

9 Gen. Sir Archibald Wavell launches counterattack in Egypt.

29 F.D.R. announces aid to Britain; calls for full war aid to Britain; U. S. "Arsenal of Democracy."

1941

This was the winter of the long blitz. The Luftwaffe rained bombs methodically on England. The Nazi war machine had rolled through the Balkans and was pushing across the rim of North Africa toward Suez, threatening the British life line. Lend-Lease was about to begin, over the bitter protests of isolationists. Already plants were expanding. The cry was for machine tools, aluminum, mechanics. While selective service took the youngsters, the able-bodied, the unmarried, industry's demands started a feverish migration from farms and towns to San Diego, Hartford, Paterson, Seattle, Kansas City, Detroit, Bridgeport. The "Arsenal of Democracy" was beginning its gigantic task. The training of the first raw conscripts had started. In newly staked-out Army camps thousands of wooden barracks and mess halls rose to the clatter of hammer and saw.

Jan. 1 Ban by ASCAP bars most U. S. music from air.

7 William S. Knudsen and Sidney Hillman named U. S. defense production heads with equal powers.

22 British take Tobruk.

24 Four-day revolt of Iron Guard quelled after about 6,000 are killed in Rumania.

27 Willkie and Churchill confer in London.

Feb. 10 Britain breaks with Rumania.

26 Britain wins all Somaliland in East Africa.

Mar. 1 Bulgaria joins Axis; Nazis troops move in.

15 British rush army to Greece as Nazis move into Balkans.

25 Yugoslavs sign with Axis, touching off riots and revolt; government flees.

April 6 Germany marches on Yugoslavia and Greece.

13 Belgrade falls; demoralized Yugoslavs take to the hills.
Russia, Japan sign 5-yr. neutrality pact in Moscow.

17 Yugoslavs surrender: Gen. Draja Mikhailović continues guerrilla warfare.

27 Nazi tanks roll into Athens as remnants of British army quit Greece.

May 6 Stalin takes Soviet premiership from Molotov.

10 Rudolf Hess, Nazi Deputy Fuehrer, lands in Scotland by plane.

11 Worst air raid on London takes 1,436 lives.

15 U. S. seizes *Normandie*, 10 more Vichy ships.

19 Italian forces in Ethiopia surrender to British.

20 LaGuardia named director of Office of Civilian Defense.
Nazis launch airborne invasion of Crete.

24 HMS *Hood*, biggest British warship, sunk by Nazi battleship *Bismarck*.

27 *Bismarck* sunk by British naval, air attack.
Roosevelt proclaims unlimited emergency.

June 1 Crete overrun by Nazis.

2 Hitler and Mussolini meet at Brenner Pass.

18 Turkey signs amity pact with Germany.

21 British and Free French capture Damascus.

22 Hitler launches attack on Russia.

July 5 Nazis reach the Dnieper.

7 U. S. occupies Iceland bases to supplement British troops.

12 Nazis break "Stalin Line," fan out toward Kiev, Moscow, Leningrad.
Britain and Russia sign war pact, bar separate peace.

20 British broadcast calls for "V for Victory" campaign—launching famous symbol.

25 U. S. freezes Japanese assets, cuts off oil, bars silk.

Aug. 12 Pétain summons France to full support of Hitler, backs war against Russia.

14 F.D.R. and Churchill announce agreement on war aims, future hopes in historic Atlantic Charter.

20 Russians blow up Dnieper dam as Nazis sweep across Ukraine.

28 Iran yields to British-Soviet troops; agrees to protective occupation.

Sept. 4 U. S. destroyer *Greer*, attacked by Nazi sub, fights back.

8 Leningrad encircled by Nazis; siege begins.

11 F.D.R. orders Navy "shoot first" if Axis raiders enter U. S. zone.

12 Germans threaten countermeasures to U. S. "shoot first" policy.

19 Nazis take Kiev and Poltava.

Oct. 3 Hitler announces Russia is defeated and "will never rise again."

16 Jap cabinet falls in crisis; Tojo, army firebrand, new Premier.
House votes to arm American merchant ships.

17 U. S. destroyer *Kearny* torpedoed off Iceland; 11 lost.

30 U-Boat sinks U. S. destroyer *Reuben James* with loss of 100 off Iceland.

Nov. 3 Nazis overrun Crimea, head for Sevastopol.

6 Maxim M. Litvinov named Russian Ambassador to U. S.

12 Russians halt Nazis at gates of Moscow.

15 Saburo Kurusu, Jap peace envoy, arrives at Washington.

26 Hull presents final terms to Jap envoys.

Dec. 1 U. S.-Japanese tension rises as F.D.R. sees Navy chief. Japan moving troops in Indo-China; British fleet reaches Singapore.

6 F.D.R. sends appeal to Hirohito, urging peace.
England declares war on Finland, Rumania and Hungary.

7 Japan attacks Pearl Harbor, Philippines, Guam, forcing U. S. into war; Pacific Fleet crippled.

8 Congress votes war, 470–1; Britain declares war on Japan.
Berlin announces drive on Moscow is off for the winter.

9 Japs invade Malaya.

10 Japs land on northern Luzon in the Philippines.
Jap planes sink British battleships *Prince of Wales* and *Repulse* off Malaya.

11 German, Italian declarations of war on U. S. bring quick response from Congress.

12 Japs seize Guam, attack Midway, Wake.

14 Japs attack Hong Kong.

16 Justice Owen Roberts heads Pearl Harbor inquiry.

17 Chester Nimitz succeeds Kimmel as head of Pacific Fleet.

20 MacArthur made full general; Admiral King given top command of U. S. Naval forces.

21 Hitler ousts Field Marshal Wal-

ther von Brauchitsch, takes supreme army command with rank of Field Marshal.

22 Churchill at White House for war parleys.

25 Hong Kong falls.

27 Japs bomb Manila (open city).

28 Japs invade Sumatra.

1942 Those little Japanese, they must be crazy! So we mumbled and fumed that Sunday afternoon. They were crazy, but they had sunk half our fleet (except the carriers), crippled a great naval base, reduced our Pacific sea power dangerously. They had driven us to panic, then into rage and confusion. We shook that off. We were in it now, up to our ears. The confusion cleared. The carping clamor of the isolationists died out—to be followed almost immediately by a shrill Communist clamor for a second front.

Russia was in desperate straits that winter. The war tempo came to America. Blackouts, air-raid wardens, civilian defense, censorship, draft boards, ration books, Knudsen-Hillman. No more automobiles. Already our planes were streaming onto English airfields; shiploads of trucks and tanks were unloading on the Persian Gulf for transit to Russia. We were in Iceland, Bermuda, on the shoulder of South America. We were in it—for keeps.

Jan. 2 MacArthur gives up Manila; fights on for Bataan, Corregidor.

13 Donald Nelson made chairman of War Production Board.

26 U. S. troops land in N. Ireland.

31 First U. S. Navy task force attack on Marshall and Gilbert Islands.

Feb. 10 *Normandie* capsizes after fire at N. Y. pier; sabotage theory rejected by Naval officers.

15 British surrender Singapore.

28 Japs invade Java.

Mar. 8 They land on New Guinea at Salamaua and Lae.

17 MacArthur arrives in Australia from Philippines; promises to reorganize Pacific forces.

29 Britain offers India dominion status after war with right to quit Empire. Indian leaders reject it.

April 9 U. S. forces on Bataan surrender.

14 Laval becomes Premier of France.

18 Tokyo bombed by U. S. planes from carrier *Hornet*.

May 4–9 Jap fleet defeated with heavy loss in Battle of Coral Sea, carrier plane action.

6 General Wainwright surrenders Corregidor.

15 Gas rationing starts in 17 eastern states and D. C.

30 Over 1,000 RAF planes smash Cologne in war's mightiest raid.

June 4–6 U. S. Pacific Fleet stops Jap seapower in crucial Battle of Midway.

10 Lidice, Czech., razed, all males put to death in Nazi terror following Heydrich assassination, Berlin announces.

12 Japs land on Attu in Aleutians; Jap ships reported in harbor of Kiska.

July 21 Leahy named F.D.R.'s chief of staff.

Aug. 7 U. S. Marines land in Solomons, seize Tulagi and Guadalcanal, first step on road to Tokyo.

Sept. 12 Russians halt Nazis at Stalingrad; more than 1 million engaged in crucial siege.

Oct. 3 F.D.R. orders price, wage, rent stabilization; names Byrnes director of Office of Economic Stabilization.

24 Montgomery attacks Rommel's El Alamein line in Egypt.

Nov. 8 U. S. and England land great army in French North Africa; largest invasion operation in history.

11 Nazis begin occupation of all France.

14 Eddie Rickenbacker and companions rescued after 24 days adrift in Pacific after plane crash.

13–15 U. S. smashes Jap armada in Solomons.

18 Pétain makes Laval dictator of France.

27 French scuttle main part of fleet at Toulon to save it from Nazis.

Dec. 1 Beveridge submits cradle-to-grave security plan in Britain.

24 Darlan, 61, French turncoat and civilian administrator in Africa, assassinated.

1943 The war maps showed a U. S. Army pushing the Nazis back in Tunis; Rommel's Afrika Korps streaming through Tripoli in retreat. American men, tanks and planes were in action at last.

MacArthur had stopped the Japs on New Guinea, was building a base in Australia. Our Navy had rallied in the Pacific and was getting ready to take the offensive. At home the shrill outcry for a second front mingled with the drive to sell war bonds, scrap metal drives. Beneath these surface excitations was the steady roar of machinery, the surge and thunder of blast furnaces and rolling mills. The blueprint

stage was past. We were making the stuff.

Eighteen miles northwest of Knoxville that winter, woodsmen were clearing a Tennessee hillside. A building operation was about to begin, Manhattan Project, at Oak Ridge, something connected with science, and the war.

Jan. 11 F.D.R. calls for $100 billion for war.
14–24 Casablanca Conference: Roosevelt and Churchill agree on unconditional surrender goal.
18 Russians announce breaking of 17-month Leningrad siege.
27 First all-U. S. air raids over Reich.
31 German 6th Army reported virtually destroyed at Stalingrad; turning point of war in Russia.

Feb. 9 Japanese evacuate Guadalcanal.
11 Dwight D. Eisenhower made full general; will command Allied armies in North Africa.
16 Russians take Kharkov.

Mar. 2–3 Japs lose 10 warships, 12 transports as Allied planes smash convoy in Battle of Bismarck Sea.

April 7 Advance forces of U. S. 2nd Army and British 8th Army meet in Tunisia.
8 President curbs prices, pay, job changing.
19 Reports tell of Nazi annihilation of 2,000,000 European Jews by gas chamber, mass execution.

May 7 Americans take Bizerte; British seize Tunis.
11 Americans land on Attu in Aleutians.
12 Remnants of Nazis trapped on Cape Bon, ending war in Africa.
15 Third International (Comintern) dissolved in Moscow.

June 22 Army enters Detroit to quell race riots.
30 MacArthur makes landings at New Guinea, Trobriand, Rendova.

July 9 Allies invade Sicily.
25 Mussolini deposed. King and Pietro Badoglio rule Italy.

Aug. 17 Sicily conquest complete as Messina is captured.
21 Russians replace Litvinov as U. S. Ambassador with Andrei Gromyko.

Sept. 4 MacArthur lands near Lae, N. G.
8 Italy's unconditional surrender announced.
9 Mark Clark's Fifth invades Italy at Salerno.
10 Nazis seize Rome.

Oct. 13 Italy declares war on Germany.
19–Nov. 1 Moscow Conference: Hull, Eden, Molotov pledge unity to win war and establish world organization; promise democratic Italy and free Austria.

Nov. 6 Russians retake Kiev.
20 Marines land at Tarawa and other Gilbert islets.
22–26 Cairo Conference: Roosevelt, Churchill, Chiang pledge defeat of Japan, free Korea.
28–Dec. 1 Teheran Conference: Roosevelt, Churchill, Stalin agree on invasion plans.

Dec. 24 Eisenhower named to command invasion of Europe.
26 Nazi pocket battleship *Scharnhorst* sunk by British off northern Norway.
27 U. S. seizes railroads to bar strike.

1944

Through the big staging depots behind the seaport cities endless streams of men moved toward the docks. Trainloads, busloads; sunburned, hardened soldiers loaded with gear, men of college age, weaned from family and home; tough, casual young Americans on their way to war.

Railway stations and bus terminals eddied with hurrying, uniformed figures. Broadway and Main Street were overrun. War had reached concert pitch. England bulged with uniformed men, fighter and bomber pilots, tanks, trucks, matériel. Ships in great sprawling convoys were moving across the Atlantic; tankers, troopships, supply ships, ammunition ships, LST's, LCI's, assembling around the rim of the British Isles for D-Day.

In the Pacific, Task Force 58 with its new fast Essex class carriers was ranging from the Solomons to the Gilberts and Marshalls. The Navy was about to begin its swift relentless conquest of the Pacific stepping stones to Japan.

Jan. 4 Russian army over Polish line.
22 Allied troops land behind German lines at Anzio near Rome.
31 Marines and Army troops land on Kwajalein Atoll in the Marshalls.

Feb. 15 The Abbey of Monte Cassino bombed by Allied planes.

Mar. 4 U. S. planes attack Berlin for the first time.
19 Russians reach Rumanian border.

April 26 U. S. Army seizes Montgomery Ward and Company in Chicago as a result of a strike.

May 9 Russians retake Sevastopol.

June 4 Rome falls to the Allies.
6 American, British and Canadian forces land in France, D-Day.

11 Russians open drive against Finland.

15 New B-29 Superfortresses bomb Japan for the first time.
Germans begin robot bomb attacks on England.

26 Cherbourg falls to the Allies.

July 3 Minsk, last great Russian city held by Nazis, taken by Russians.

20 Hitler wounded in bomb plot.
American forces land on Guam.

Aug. 2 Turkey breaks off diplomatic relations with Germany.

15 Allies land in south France.

23 Marseilles, Grenoble fall.

25 Paris freed by U. S. and French troops.

Sept. 4 Antwerp, Brussels fall to Allies.
Finns quit war with Russia, ask Germans to leave the country.

11 Americans enter Germany.

14 Marine 1st Division lands in Palau.

17 Allied air-borne army lands in Holland.

24 Czechoslovakia and Hungary are invaded by Red army.

Oct. 4 American forces break through the German Westwall.

13 U.S.S.R. captures Riga, Latvia.

20 U. S. troops invade the Philippines.

28 Bulgaria signs Soviet armistice terms.

Dec. 15 Americans land on Mindoro, 150 miles from Manila.

16 German counteroffensive launched in Belgium.

24 Americans temporarily halt the Nazis on the ninth day with help of 7,000-plane raid.

1945 It was mostly downhill now. The great American war potential had delivered the goods. America's industrial strength, translated into tanks, trucks, planes, jeeps, was closing in on Germany. The Battle of the Bulge was the Nazis's last desperate stroke and it didn't quite come off. Along the Pacific seaboard, Navy convoys were loading for Iwo and Okinawa. From newly captured Saipan and Tinian, B-29's were pounding Japan's industrial centers to rubble. The war had come to its last decisive phase. Here at home the nation churned with ultimate activity. Everyone had a job, everyone had money. Hotels, night clubs, theaters, roadhouses, juke joints reflected the tension and hysteria. Victory was in the air.

Jan. 9 General Douglas MacArthur lands invasion force in Lingayen Gulf, Luzon; wins 15-mile beachhead.

12 German line crumbles; Allies regain 100 square miles in "Bulge."

17 Russians take Warsaw by encirclement.

26 Yankees sold to McPhail-Topping syndicate for $3,000,000.

Feb. 3 U. S. Army breaches Westwall; drives last Nazis from Belgium.
U. S. troops enter Manila.

5 Trapped Japs fire Manila, business area in flaming ruins.
Third Army smashes through Siegfried Line.

7 Russians reach outer defenses of Berlin.

12 Big Three at Yalta agree to disarm Germany forever.

13 Russians take Budapest after 50-day siege.

19 U. S. Marines land on Iwo Jima.

23 Marines raise flag on Mt. Suribachi.

24 Egyptian Premier assassinated as Egypt declares war on Axis.

Mar. 7 Lt. Gen. Courtney H. Hodges' First Army crosses Rhine south of Cologne.

10 B-29's begin incendiary raids on Japan, set great fires in Tokyo.

16 Iwo Jima, toughest Pacific Island, falls to U. S. after 25-day assault.

22 Patton's Third Army crosses the Rhine.

30 Russians take Danzig.

April 1 U. S. Tenth Army invades Okinawa.

11 Ninth Army reaches the Elbe in 50-mile surge; Russians drive past Vienna.

12 F. D. Roosevelt, 63, dies of cerebral hemorrhage at Warm Springs, Ga., at 3:35 P.M. Harry S. Truman sworn in to succeed him.

13 Russians take Vienna, seize 120,000 Nazis.

21 Russians edge into Berlin.

23 Nicholas Murray Butler retires after 44 years as president of Columbia University.

25 United Nations parley opens at San Francisco.
Americans and Russians meet on the Elbe.

26 Bremen falls to British; Henri Philippe Pétain captured at French border.

28 Benito Mussolini, 61, and mistress Clara Petacci killed at Lake Como.

30 Russian flag raised over Reichstag.

May 1 Grand Admiral Karl Doenitz takes

command in Germany, announcing death of Hitler, 56.

2 Berlin falls.

4 Nazis give up Denmark, Netherlands, North Germany.

7 Germany surrenders unconditionally at 2:41 A.M. (French time).

23 Churchill dissolves British war cabinet; calls election.
Admiral Doenitz and aides seized.
Heinrich Himmler, 44, commits suicide by poison.

26 Vast Tokyo area—18.6 square miles—burned out by double raid of B-29's.

June 14 Joachim von Ribbentrop, Nazi foreign minister, seized in Hamburg.

21 Okinawa won by U. S. Tenth Army.

26 United Nations Charter signed at San Francisco.

27 Edward R. Stettinius, Jr., resigns as Secretary of State to become U. S. delegate to United Nations.

July 13 U. S. surface fleet begins bombardment of Japan.

15 Lights in Britain shine at night for first time since Sept. 3, 1939.

17 Truman, Churchill, Stalin meet at Potsdam for final war conference.

21 U. S. serves Japan with unconditional surrender ultimatum on Potsdam terms.

26 Churchill out, Attlee in as British election returns show overwhelming sweep for Labour party.
Attlee replaces Churchill at Potsdam conference.

28 Army bomber crashes into Empire State Building in fog; 13 killed, 26 hurt.

Aug. 2 Potsdam parley agrees on future of Germany; reparations, peace preliminaries.

6 Hiroshima blasted by atomic bomb dropped by U. S. Army Air Force. (Trial bomb tested in New Mexico, July 16.)

8 Russia declares war on Japan.

9 Nagasaki hit by second atomic bomb.

14 Japan accepts surrender terms; war ends. MacArthur to direct occupation.

16 Pétain guilty of treason; death sentence commuted to life imprisonment by Provisional President Charles de Gaulle.

Sept. 2 Japanese sign surrender aboard battleship *Missouri* in Tokyo Bay.
V-J Day.
Stalin in victory broadcast claims Kuriles and Sakhalin for Russia.

11 Gen. Hideki Tojo, wartime premier, shoots himself in futile suicide attempt.

Oct. 3 Truman suggests world ban atom bomb in war; asks federal control on atomic development in U. S.

D Pierre Laval, 62, sentenced to die as traitor (dies Oct. 15).

18 Twenty-four Nazi ringleaders indicted as war criminals.

Nov. 6 O'Dwyer elected Mayor of N. Y.; Tammany back after 12 years.

15 Truman, Attlee, King decide in Washington conference that atom bomb secrets will not be shared until United Nations devise firm control plan.

Dec. 15 Prince Fumimaro Konoye, three times premier of Japan, commits suicide rather than face trial.

16 Truman names Secretary Byrnes, Stettinius, Senator Tom Connally, and Mrs. Eleanor Roosevelt delegates to the United Nations.

1946

The first full year of peace. Peace? Labor fought capital in the U. S. as never before—four and a half million men were involved in strikes. Congress and President Truman fought over price controls. Results: prices zoomed. You could pay $2.75 for one hamburger at a restaurant, or $17.50 for one shirt. Peace? You should have heard what the Republicans called the Democrats. The Republicans won Congress. Peace? Interminable wrangling among the Big Four victors. Finally they grudgingly agreed on compromise peace treaties, but only for the small-fry enemies, not for Germany or Japan. And the shaky walls of the young United Nations edifice were almost knocked down by the quarrels between Russia and the Western nations. A total of 11,000 divorces was granted in Reno—an all-time record. The U. S. nonfiction best seller was *Peace of Mind.*

Jan. 3 William Joyce ("Lord Haw Haw" on German radio) is hanged in London as traitor.

7 American occupation troops hold mass demonstrations saying they "wanna go home"; demonstrations spread to India, Korea, Japan, Philippines, France, Germany.

10 U. S. Army hits the moon with radar impulses.
General Assembly of the United Nations meets first time in London.

17 United Nations Security Council meets for the first time in London.

20 General Charles de Gaulle resigns as President of France.

24 U. N. General Assembly creates Atomic Energy Commission.

25 John L. Lewis and his United Mine Workers rejoin American Federation of Labor, which they had bolted in 1936.

Feb. 24 Argentina elects Perón President.

Mar. 4 England, France and U. S. publish documents showing Franco's collaboration with Axis, and call on the Spanish people for "peaceful withdrawal" of Franco.

6 Japan publishes draft of new constitution abolishing army, navy, air forces forever, making war unconstitutional.

April 3 Firing squad executes Lt. Gen. Masaharu Homma, who ordered Bataan Death March.

8 League of Nations meets for last time in Geneva; puts itself out of existence (Apr. 18).

25 Council of Foreign Ministers (Byrnes, Bevin, Molotov and Bidault) meets in Paris to draw up peace treaties for Italy, Rumania, Hungary, Bulgaria and Finland.

29 U. S. proposes treaty with England, Russia and France to keep Germany disarmed twenty-five years.

May 9 King Victor Emmanuel III abdicates, hoping Italy's monarchy can be saved by his son, Humbert, who takes throne.

17 Truman seizes railroads in face of strike threat.

June 2 Italy votes to abolish monarchy.

3 Twenty-eight Japanese war leaders go on trial in Tokyo.

29 Truman vetoes price control bill, letting OPA expire; but he hopes Congress will extend the preser law. Congress does not; OPA e pires.

British arrest 2,718 Jews in Palestine, trying to round up terrorists.

July 1 Army superfortress drops atom bomb in first test at Bikini Atoll; 5 ships sunk, 9 heavily damaged.

4 U. S. grants Philippines independence.

13 Congress approves $3,750,000,000 loan to England.

15 Yugoslavia condemns General Mikhailović to be shot.

25 Second atom bomb is tested at Bikini, exploded under water; battleship, aircraft carrier and eight other craft sent to bottom.

OPA is revived after lapse of twenty-five days as Truman signs new bill.

26 Congress puts U. S. atom control in hands of civilian board.

29 Twenty-one nations assemble in Paris to discuss peace treaties with Italy, Bulgaria, Rumania, Hungary and Finland.

Aug. 13 Russia reveals it has demanded from Turkey a share in the military control of the Dardanelles.

14 La Follette dynasty in Wisconsin is overthrown when Republicans fail to renominate Sen. Robert M. La Follette, Jr.

Sept. 1 Greece votes to bring back King George II.

2 First all-Indian government inaugurated; Jawaharlal Nehru heads cabinet.

8 Nine-year-old King Simeon II of Bulgaria loses his throne as nation votes to abolish monarchy.

20 Truman fires Henry Wallace from the Cabinet.

Oct. 1 Twelve top Nazis sentenced to die by Nuremberg tribunal; seven sent to prison; three acquitted.

13 France adopts a new constitution, by narrow margin of 1,000,000 votes, despite De Gaulle's opposition.

15 Goering, 53, kills himself with cyanide of potassium a few hours before ten other Nazis are executed at Nuremberg.

Nov. 4 British disclose that Hindu-Moslem riots in India have cost 5,018 lives in the last four months.

5 Republican landslide overturns Democratic control of Congress.

9 Truman ends all price and wage controls, except on rents, sugar and rice.

15 Dutch end 15-month strife in Java by tentatively recognizing Indonesian Republic.

21 National strike of UMW soft-coal miners begins.

Dec. 4 Judge Goldsborough fines John L. Lewis $10,000 and UMW $3,500,000 for not calling off coal strike (UMW fine reduced to $700,000 by Supreme Court, Mar. 6, 1947).

14 U. N. accepts Rockefeller gift of permanent headquarters site in midtown New York City.

19 U. N. Assembly unanimously votes resolution for general disarmament.

30 U. N. Atomic Energy Commission accepts U. S. atom control plan, 10 to 0, Russia and Poland abstaining.

1947 The United States grew tired of seeing small nations sucked into the Soviet orbit, so the Truman Doctrine was born to bolster Greece and Turkey against Communism. But this wasn't enough. By summer the Marshall Plan was born—a vast, four-year project by which the United States would pour out billions to put sixteen democracies of Western Europe back on their feet economically. Here at home we were harassed by the high cost of living. Eggs: $1 a dozen; butter and steak: $1 a pound. Income tax: still at war peak, and Truman vetoed cuts passed by Republican Congress. To top it all, Paris fashion designers told women to throw away their dresses and get the long-skirt New Look; meekly, they did.

Jan. 1 England nationalizes all coal mines.

U. S. transfers control of domestic atomic energy development from Army to civilian commission.

16 Vincent Auriol elected first President of Fourth French Republic.

17 Paul Ramadier, Socialist, named first Premier of new French constitutional government.

Feb. 10 Peace treaties for Italy, Rumania, Bulgaria, Hungary and Finland are signed in Paris.

17 British capture 22nd shipload of Jewish refugees trying to smuggle themselves into Palestine; deport them to Cyprus.

20 Britain announces she will withdraw from India by June, 1948, regardless of whether India has established government by then.

28 France and England announce 50-year treaty of alliance; to be signed Mar. 4.

Mar. 4 Russia rejects U. S. plan for control of atomic energy by U. N.

6 Supreme Court finds John L. Lewis guilty of contempt for failing to call off coal strike in November.

10 Big Four Council of Foreign Ministers begins Moscow meeting to draw up peace treaties for Italy and Germany.

12 Truman asks Congress for $400 million to save Greece and Turkey from Communist expansionism.

31 Draft law expires; many war-time controls go off. Sugar rationing stays.

April 1 King George II of Greece dies of heart attack; his brother takes throne as Paul I.

2 Security Council approves U. S. trusteeship of former Japanese-mandated Pacific islands.

9 Senate confirms, 50–31, nomination of David E. Lilienthal and 4 others in U. S. Atomic Energy Commission after 10-week fight.

14 General Motors settles wage dispute with United Electrical Workers (CIO) with 15-cent-an-hour wage increase setting pattern.

May 4 Socialist Premier Paul Ramadier ejects Communists from French Cabinet.

15 U. N. General Assembly ends first special session after voting, 46–7, for 11-nation inquiry committee on Palestine.

23 U. N. Balkan Inquiry Commission finds Yugoslavia, Bulgaria and Albania guilty of aiding Greek guerrilla forces waging civil war.

June 5 Marshall says U. S. may have to spend billions to put Europe on its feet (Marshall Plan).

11 U. S. ends sugar rationing, last of wartime controls.

27 Foreign Ministers of Britain, U.S.S.R. and France meet in Paris to discuss Marshall Plan.

July 6 Generalissimo Franco holds plebiscite in Spain to ratify his dictatorship; wins by large margin.

8 Coal strike averted as United Mine Workers win biggest pay boost in history—44⅜ cents an hour.

12 Paris conference on Marshall Plan to reconstruct Europe opens with 16 nations attending and 8 nations boycotting (at behest of Russia).

20 Dutch troops launch offensive in Java against native Indonesian Republic.

Aug. 1 U. N. Security Council orders Dutch and Indonesians to cease hostilities in Java.

10 William P. Odom flies alone around world in fastest time ever —19,645 mi. in 73 hr., 5 min., 11 sec.

15 Freedom comes to India, split into two states—India (mostly Hindu) and Pakistan (mostly Moslem).

19 Two Soviet vetoes kill Security Council effort to resolve Balkan crisis involving Greece, Bulgaria, Yugoslavia and Albania.

27 England cuts meat ration to 20 cents a person a week to keep from bankruptcy; bans all pleasure motoring after Oct. 1.

Sept. 2 19 American nations sign treaty of Rio de Janeiro, for mutual aid against aggression.

15 Peace treaties for Italy, Rumania,

Hungary, Bulgaria and Finland go into effect at midnight.

22 16 European nations complete in Paris their report on Marshall Plan; say Europe will need $15.81 billion in credits from U. S. in next 4 years.

Oct. 5 Moscow announces formation of new Communist international organization, "Cominform," aimed at U. S. "imperialism."

28 Congressional inquiry into Communism in Hollywood cites 10 screen writers for contempt for failing to say whether they are or ever were Communists.

Nov. 2 Howard Hughes flies world's biggest plane, built for 500 passengers.

5 U. N. Assembly approves sending commission to Korea to set up free government; Russia boycotts it.

17 Truman asks for power to revive price controls and rationing if necessary.

20 Princess Elizabeth of England is married to Lt. Philip Mountbatten.

29 U. N. Assembly approves partitioning of Palestine.

1948

A year of the jitters. The world shuddered when Soviet Russia gobbled up Czechoslovakia. The world was on tenterhooks when Russia blockaded the sectors of Berlin occupied by the U. S., Great Britain and France. What day would World War III break out? Whittaker Chambers opened a pumpkin, and out popped State Department secrets allegedly stolen for the Communists. The U. S. began rearming, drafting its youths into the Army. But we took time out on November 3 to give a great roar of laughter. Poor Harry Truman, shunned by many of his own Democrats, consigned to oblivion by all the pollsters and political pundits—poor Harry was just about the only man who thought he could be re-elected President—*and he was right!* Best-selling books of the year were: *Sexual Behavior in the Human Male,* which indicated that American males don't behave too well, and *How to Stop Worrying and Start Living,* the profits from which certainly must have eased any of Dale Carnegie's worries.

Jan. 1 Britain nationalizes railways.

2 India appeals to U. N. to stop "aggression" by Moslem Pakistan.

5 U. N. Little Assembly meets for first time; boycotted by Russia, Poland, Yugoslavia, Czechoslovakia, the Ukraine and Byelorussia.

12 U. S. Supreme Court orders Oklahoma to provide legal education for Negro girl.

17 Dutch sign truce with Indonesian Republic in Java, retaining rich oil and rubber areas.

28 Longest U. S. cold wave in 12 winters shuts schools and factories for lack of fuel oil.

30 Gandhi is assassinated by Hindu fanatic who wanted war against Moslem Pakistan.

Feb. 4 Britain freezes wages to curb inflation.

18 Éamon de Valera ousted as Prime Minister of Ireland after 16 years; John A. Costello elected.

23 5 Southern governors, angry at Truman civil-rights program to aid Negroes, say "South is no longer 'in the bag.'"

Communists seize power in Czechoslovakia; President Eduard Beneš yields.

29 Navy FJI, jet fighter plane, sets new speed record, flying 950 mi. from Seattle to Los Angeles in 1 hr., 58 min., 7 sec.

Mar. 2 Snowfall in New York City reaches total of 58.4 in., setting record since winter of 1892–93.

6 Western Allies agree on international control of Germany's Ruhr.

10 Jan Masaryk, 61, Foreign Minister of Czechoslovakia, plunges to death; Czech Communists say it was suicide.

17 Truman asks Congress to revive draft to forestall Russian aggression.

5 nations (Britain, France, Belgium, Netherlands, Luxemburg) sign 50-year treaty of alliance.

30 Ninth International Conference of American States opens in Bogotá, Colombia.

31 Russia imposes rigid controls on British, French and American traffic between Berlin and western zones; Western Allies halt their trains rather than submit.

Apr. 2 Congress passes global aid bill of $6.098 billion, including European Recovery Program.

18–19 Communists beaten in Italian elections, winning only 31 per cent of vote. Christian Democratic party wins 49 per cent.

19 Federal District Court convicts John Howard Lawson, film writer, of contempt of Congress for failing to say whether or not he was a Communist.

20 Federal court fines John L. Lewis $20,000 and United Mine Workers

$1,400,000 for criminal contempt in failing for one week to obey court order to call off strike.

Assailant wounds Walter P. Reuther, President of United Automobile Workers, by firing through kitchen window.

May 14 British end mandate over Palestine; Jews proclaim new nation of Israel.

16 Arab armies invade Palestine from both north and south.

25 General Motors grants 11-cent hourly wage increase to UAW; wages to move up or down according to living costs.

June 3 World's largest telescope, 200-in. mirror, is dedicated on Palomar Mountain, Calif.

7 Eduard Beneš resigns as President of Czechoslovakia rather than sign new Communist constitution.

9 Truman says 80th Congress is worst in U. S. history.

11 Palestine war ceases for 4 weeks under U. N. truce.

17 Britain and France agree to set up separate state of West Germany under Western Allies' control.

19 Russia stops all rail and road traffic between Berlin and western German occupation zones; Americans, British and French isolated in city.

28 Communist Information Bureau (Cominform) denounces Marshal Tito, Yugoslav Premier.

July 1 Russians withdraw from Allied Kommandatura, 4-power government of Berlin.

5 Britain adopts National Health Service Act providing free medical service for everybody who requests it.

18 Arabs and Jews obey U. N. order to cease fire in Palestine under threat of penalties.

20 U. S. indicts 12 Communist party leaders on charges of advocating overthrow of U. S. government.

31 New York International Airport at Idlewild, Queens, dedicated; largest commercial airport in world.

Aug. 2 Senate filibuster kills bill to abolish poll tax in Southern states.

3 Whittaker Chambers, former Communist, says Communists maneuvered themselves into key U. S. government posts before war.

12 Mrs. Oksana Kasenkina, Russian teacher, jumps out of Soviet consulate in New York; says later she was "prisoner" there.

Sept. 6 Queen Wilhelmina of the Netherlands abdicates after reigning 50 years; Juliana becomes Queen.

17 Count Bernadotte, U. N. mediator in Palestine, slain in Jerusalem.

25 U. S. discloses jet-plane speed approaching 900 mi. an hour.

29 U. S., Britain and France ask U. N. to consider Berlin crisis as "threat to peace."

Oct. 22 One-week renewal of Palestine warfare ends with Israel wresting control of Negeb from Egyptians.

25 Russia vetoes U. N. plea to lift Soviet blockade of Western Berlin.

26 5 European Western Union nations ask U. S. and Canada to join in North Atlantic alliance.

30 First shipload of 813 DP's arrive in New York.

Nov. 1 Chinese Communists capture Mukden, giving them control of Manchuria.

8 Rep. J. Parnell Thomas (N. J.) indicted on charges of conspiracy to defraud government by salary kick-backs.

12 Tojo and 6 other Japanese war leaders sentenced to hang.

14 Princess Elizabeth gives birth to 7 lb. 6 oz. son, who may someday be King of England.

Dec. 6 Whittaker Chambers says Alger Hiss supplied data for Communist spies.

19 Dutch troops seize Jogjakarta, capital of Indonesian Republic

23 Hideki Tojo and 6 other Japanese war leaders hanged in Tokyo.

1949 Having chewed $148 million worth of gum during 1948, the people of our great republic started off 1949 by seeking something for nothing in two ways: (1) by annexing the millions of dollars handed out free by radio give-away shows, and (2) by plunging into a craze called Pyramid Clubs. In the eyes of some, the biggest news of the year was that red-headed Rita Hayworth, of Hollywood, was married in May to Prince Aly Khan, heir to one of the world's largest fortunes. By summer, however, we had plunged into a full-blown Red scare: Communists in the schools, maybe—and Alger Hiss in the State Department. President Truman called it hysteria. And then in early autumn the President made a momentous 14-word announcement that changed the whole world picture: "We have evidence that within

recent weeks an atomic explosion occurred in the U.S.S.R." We shivered at the thought that Russia had the atom bomb 3 years earlier than expected.

Jan. 1 India and Pakistan end war over Kashmir, accepting U. N. truce plan for plebiscite.

21 Chiang Kai-shek retires from presidency of China.

25 Israel holds first elections; David Ben-Gurion's moderate Socialist party wins.

Feb. 7 Canton becomes temporary capital of China as Communists menace Nanking.

8 Hungary sentences Josef Cardinal Mindszenty to life imprisonment for treason.

New 6-jet Boeing B-47 bomber crosses U. S. in 3 hr., 46 min. at average speed of 607 mph.

9 Robert Mitchum and Lila Leeds, both of the movies, sentenced to 60 days in jail for marijuana party.

17 Dr. Chaim Weizmann elected first President of Israel by Assembly.

22 Russia deports Anna Louise Strong, American writer, as spy.

Mar. 2 Air Force B-50 Superfortress, *Lucky Lady II*, lands at Fort Worth, Tex., after circling globe nonstop—23,452 mi. in 94 hr., 1 min. Was refueled in air 4 times.

8 William P. Odum sets long-distance record for light land planes, flying 5,300 mi. nonstop from Honolulu to Teterboro, N. J., in 36 hours.

Bulgaria sentences 4 Protestant clergymen to life imprisonment as spies for U. S.

10 Mildred E. Gillars ("Axis Sally") found guilty of treason.

25 Cultural and Scientific Conference for World Peace opens in New York as pickets shout and pray against communism.

29 Largest bank theft in New York City history: $883,660 missing, along with assistant branch manager of National City Bank.

April 2 Lights go on full in Britain, for first time in 10 years, as electricity becomes plentiful.

3 Israel and Jordan sign armistice, ending Palestine war.

4 12 nations sign North Atlantic defense treaty.

14 Last Nuremberg war-crimes trial by American military tribunal sends 19 high Nazis to prison.

18 Eire becomes free republic of Ireland, cutting last tie with Britain.

23 U. S. Navy ordered to halt construction of 65,000-ton supercarrier after keel is laid; Sec. of Navy Sullivan resigns (April 26) in protest.

24 Chinese Communists capture Nanking.

May 8 West Germans, at Bonn, approve constitution for federal republic.

10 Frank Hague's political machine in Jersey City, N. J., beaten at polls after 32-year rule.

11 U. N. admits Israel as 59th member.

12 Russia lifts land blockade of West Berlin; Western Allies lift their counterblockade.

22 James V. Forrestal, 57, former Sec. of Defense, leaps to death from 16th floor of Bethesda (Md.) Naval Hospital.

27 Rita Hayworth is married to Prince Aly Khan in Vallauris, Fr.

June 1 Czechoslovakia takes over control of Catholic Church.

20 Council of Foreign Ministers adjourns without agreement on unifying Germany.

30 Senate defeats Truman's drive to have Taft-Hartley Law repealed. Judith Coplon, former Department of Justice worker, convicted as spy.

July 8 Alger Hiss perjury trial ends in hung jury: 8 for conviction, 4 for acquittal.

13 Pope Pius XII decrees excommunication for all Catholics who are aggressive Communists.

21 Senate ratifies North Atlantic Treaty without reservations by vote of 82–13.

23 Mrs. Franklin D. Roosevelt denies Cardinal Spellman's charge she has "record of anti-Catholicism."

Aug. 5 State Department White Paper abandons hope of saving China from communism.

8 12-nation Council of Europe holds first meeting in Strasbourg, Fr., to promote European unity.

14 West German republic elects first *Bundestag;* conservatives win over Socialists.

16 Otis Barton sets record by descending 4,500 ft. into Pacific off Santa Cruz island, Calif., in "benthoscope."

18 Give-away radio shows banned by FCC after Oct. 1.

Sept. 8 U. S. grants $20-million loan to

Tito to help Yugoslavia avoid Russian domination.

12 West German republic elects Theodor Heuss first President.

15 Konrad Adenauer elected Chancellor of West Germany.

18 Britain devalues pound sterling from $4.03 to $2.80.

21 Chinese Communists proclaim People's Republic of China, setting up government at Peiping.

23 Truman discloses that atomic explosion took place recently in U.S.S.R., meaning Russians have A-bomb secret.

29 "Tokyo Rose" (Mrs. Iva Ikuko Toguri D'Aquino) found guilty of treason for wartime broadcasts from Japan.

Oct. 5 Henri Queuille resigns in France after 1 year, 25 days as Premier.

11 Democratic Republican Government of East Germany elects Wilhelm Pieck, number-one Communist, as first President.

12 Joint Congressional Committee clears Atomic Energy Commission of charges of "incredible mismanagement."

14 11 top U. S. Communists found guilty of conspiring to advocate violent overthrow of government.

15 Chinese Communists capture Canton; Nationalist government flees to Chungking.

16 Greek rebels announce end of civil war.

24 Cornerstone laid for U. N. headquarters in New York City.

Nov. 18 Vice President Barkley is married to Mrs. Carleton S. Hadley in St. Louis, Mo.

23 David Lilienthal resigns as chairman of Atomic Energy Commission.

30 Chinese Communists capture Chungking.

1950 It seemed like a nightmare beginning to repeat itself. Once again the draft boards were calling up boys; the war factories were humming; our men were fighting and dying—this time in Korea. Were we embarking upon World War III? If so, we were doing it under a new flag—the flag of the United Nations. The U.N. was waging collective warfare for the first time to repel Communist aggression. But American troops were bearing the brunt. The nation's spirits sank in the summer as our soldiers were driven back into the tiny Pusan beachhead. The nation's spirits soared (too high) in the autumn when our forces drove spectacularly to the Manchurian border. Whether it was a war or not, there was always that home-front obbligato—the craze for nylon shirts, which petered out; the craze for canasta, which lingered . . . the furor over Ingrid Bergman's independent baby; the gasps about Faye Emerson's plunging necklines on TV . . . the argument that raged over Ernest Hemingway's new novel, *Across the River and Into the Trees:* was Hemingway, really, the greatest writer since Shakespeare, as John O'Hara proclaimed him?

Jan. 4 *The* (N. Y.) *Sun* ceases publication; bought by the *New York World-Telegram.*

5 U. S. will keep hands off Formosa, giving no military aid to Chiang Kai-shek, Truman announces.

6 Great Britain recognizes Communist government of China.

13 Yakov A. Malik, Russian delegate, walks out of U. N. Security Council, demanding ouster of Chinese Nationalist delegate.

19 U. S. advocates U. N. action allowing member nations to return ambassadors to Spain; however, this does not mean approval of Franco regime.

21 Alger Hiss found guilty of perjury on two counts. (Sentenced to 5 years in prison Jan. 25.)

26 India becomes independent republic, dropping allegiance to King of England.

31 Truman orders development of hydrogen super-bomb.

Feb. 7 U. S. and Britain recognize semi-independent native government in Indo-China headed by Bao Dai.

14 Chinese Communists sign 30-year alliance with Russia.

21 U. S. breaks diplomatic relations with Bulgaria on grounds that U. S. Minister and his staff have been victims of "campaign of systematic persecution."

Hungary gives 15-year prison sentence to Robert A. Vogeler, Jr., American business man, who "confessed" to spying.

23 British Labour party returned to power, with majority in House of Commons of only 7.

Mar. 1 Britain sentences Dr. Klaus Fuchs to 14 years in prison for giving atomic secrets to Russia.

7 Judith Coplon and Valentin Gubitchev found guilty of espionage conspiracy.

9 Coplon sentenced to 15 years;

Gubitchev's 15-year sentence to be suspended if he leaves U. S.

12 Belgium holds referendum on return to throne of King Leopold III; 57.68% of voters favor it.

26 Owen J. Lattimore named as man whom Sen. Joseph R. McCarthy believes to be "top Soviet" spy in U. S.

April 6 John Foster Dulles, Republican, named foreign-policy adviser to Secretary of State Acheson.

18 U. S. demands apology and indemnity from Russia for shooting down Navy plane over Baltic Sea.

27 Herbert Hoover urges reorganization of U. N. without Communist nations.

May 8 Supreme Court (5–1) upholds non-Communist oath in Taft-Hartley labor law.

18 North Atlantic Council sets up permanent executive committee of Deputy Foreign Ministers; approves pooling armed forces.

23 General Motors signs with UAW for 5 years of no strikes; grants pensions and raises.

U. S. arrests Harry Gold, Philadelphia biochemist, as atomic co-spy with Dr. Klaus Fuchs.

Western Allies demand dissolution of East German police militia created by Russia; say it is becoming new German army.

June 5 Supreme Court (9–0) bars segregation of Negroes in 2 Southern universities and (8–0) on railroad dining cars.

6 Trygve Lie appeals to 59 nations to admit Communist China to U. N.

8 William W. Remington, Department of Commerce economist, indicted for perjury for denying he was ever a Communist.

17–18 Navy's flying boat *Caroline Mars* flies 144 persons from Pearl Harbor to San Diego; sets trans-oceanic passenger record.

20 6-nation conference to pool Europe's coal and steel (Schuman plan) opens in Paris.

23 University of California discharges 157 for failure to sign non-Communist affirmation.

July 17 Senate subcommittee (3–2) clears State Department of Sen. McCarthy's charges of Communist infiltration.

22 King Leopold III returns to Belgium's throne after 6-year exile; Socialists riot in protest.

Aug. 1 Russia returns to U. N. Security Council; Council defeats (8–3) Soviet attempt to seat Chinese Reds.

U. S. Court of Appeals upholds conspiracy conviction of 11 top U. S. Communists.

15 Daughter born to Princess Elizabeth of England.

Republic of Indonesia proclaimed, replacing United States of Indonesia.

25 Truman orders railroads seized to avert nation-wide strike.

28 Lee Pressman, former U. S. government official, admits he was Communist in 1934–35 and names 3 others.

31 William O'Dwyer quits as Mayor of New York City to become U. S. Ambassador to Mexico.

Sept. 8 U. S. launches "Point 4" program to help underdeveloped regions of world.

10 National Production Authority established to mobilize U. S. economy for war purposes.

12 Big Three Foreign Ministers open conference in New York.

19 U. S., Britain and France pledge to fight if West Germany is attacked.

20 U. S. asks major revision of U. N. to give General Assembly powers to preserve peace.

25 New York City drops Police Commissioner William P. O'Brien over cops-gamblers scandal; Thomas F. Murphy, Hiss prosecutor, gets job.

30 The Ford Foundation announces grants totaling $3 million for scientific study of human behaviour.

Oct. 15 President Truman confers with Gen. MacArthur on Wake Island about Far East policy.

Nov. 5 U. N. General Assembly revokes ban on sending top diplomats to Franco Spain.

30 Russia uses 49th U. N. veto to kill Security Council resolution asking Chinese Communists to withdraw troops from Korea.

Truman appoints Mayor Michael V. DiSalle of Toledo, Ohio, to be Director of Price Stabilization.

Dec. 16 Truman proclaims state of emergency; names Charles E. Wilson Director of Mobilization.

19 Truman names Gen. Eisenhower supreme commander of North Atlantic Treaty forces in Europe.

NOBEL PRIZES

The Nobel prizes are awarded under the will of Alfred Bernhard Nobel, Swedish chemst and engineer, who died in 1896. The interest of the fund is divided annually among ne persons who have made the most outstanding contributions in the field of physics, hemistry, and physiology or medicine, who have produced the most distinguished literry work of an idealist tendency, and who have contributed most toward world peace.

The prizes for physics and chemistry are awarded by the Swedish Academy of Science n Stockholm, the one for physiology or medicine by the Caroline Medical Institute in tockholm, that for literature by the academy in Stockholm, and that for peace by a ommittee of five elected by the Norwegian Storting. The distribution of prizes was egun on December 10, 1901, the anniversary of Nobel's death. The amount of each prize aries with the income from the fund and since 1936 has stood at approximately £8,000.

ear	Literature	Peace
901	René F. A. Sully Prudhomme (France)	Henri Dunant (Switzerland) and Frederick Passy (France)
902	Theodor Mommsen (Germany)	Elie Ducommun and Albert Gobat (Switzerland)
903	Björnstjerne Björnson (Norway)	Sir William R. Cremer (England)
904	Frédéric Mistral (France) and José Echegaray (Spain)	Institut de Droit International (Belgium)
905	Henryk Sienkiewicz (Poland)	Bertha von Suttner (Austria)
906	Giosuè Carducci (Italy)	Theodore Roosevelt (U. S.)
907	Rudyard Kipling (England)	Ernesto T. Moneta (Italy) and Louis Renault (France)
908	Rudolf Eucken (Germany)	Klas P. Arnoldson (Sweden) and Frederik Bajer (Denmark)
909	Selma Lagerlöf (Sweden)	Augusto M. F. Beernaert (Belgium) and Baron Paul H. B. B. d'Estournelles de Constant de Rebecque (France)
910	Paul von Heyse (Germany)	The Bureau International Permanent de la Paix (Switzerland)
911	Maurice Maeterlinck (Belgium)	Tobias M. C. Asser (Holland) and Alfred H. Fried (Austria)
912	Gerhart Hauptmann (Germany)	Elihu Root (U. S.)
913	Rabindranath Tagore (India)	Henri La Fontaine (Belgium)
915	Romain Rolland (France)	No award
916	Verner von Heidenstam (Sweden)	No award
917	Karl Gjellerup (Denmark) and Henrik Pontoppidan (Denmark)	International Red Cross
919	Carl Spitteler (Switzerland)	Woodrow Wilson (U. S.)
920	Knut Hamsun (Norway)	Léon Bourgeois (France)
921	Anatole France (France)	Karl H. Branting (Sweden) and Christian L. Lange (Norway)
922	Jacinto Benavente (Spain)	Fridtjof Nansen (Norway)
923	William B. Yeats (Ireland)	No award
924	Wladyslaw Reymont (Poland)	No award
925	George Bernard Shaw (England)	Sir Austen Chamberlain (England) and Charles G. Dawes (U. S.)
926	Grazia Deledda (Italy)	Aristide Briand (France) and Gustav Stresemann (Germany)
927	Henri Bergson (France)	Ferdinand Buisson (France) and Ludwig Quidde (Germany)
928	Sigrid Undset (Norway)	No award
929	Thomas Mann (Germany)	Frank B. Kellogg (U. S.)
930	Sinclair Lewis (U. S.)	Lars O. J. Söderblom (Sweden)
931	Erik A. Karlfeldt (Sweden)	Jane Addams (U. S.) and Nicholas M. Butler (U. S.)
932	John Galsworthy (England)	No award
933	Ivan G. Bunin (Russia)	Sir Norman Angell (England)
934	Luigi Pirandello (Italy)	Arthur Henderson (England)
935	No award	Carl von Ossietsky (Germany)
936	Eugene O'Neill (U. S.)	Carlos de S. Lamas (Argentina)
937	Roger Martin du Gard (France)	Lord Cecil of Chelwood (England)
938	Pearl S. Buck (U. S.)	Office International Nansen pour les Réfugiés (Switzerland)
939	Frans Eemil Sillanpää (Finland)	No award

Nobel Prizes—(cont.)

Year	Literature	Peace
1944	Johannes V. Jensen (Denmark)	International Red Cross
1945	Gabriela Mistral (Chile)	Cordell Hull (U. S.)
1946	Hermann Hesse (Switzerland)	Emily G. Balch and John R. Mott (U. S
1947	André Gide (France)	American Friends Service Committ (U. S.) and British Society of Friend Service Council (England)
1948	Thomas Stearns Eliot (England)	No award
1949	William Faulkner (U. S.)	Lord John Boyd Orr (Scotland)
1950	Bertrand Russell (England)	Ralph J. Bunche (U. S.)

Year	Physics	Chemistry	Medicine
1901	Wilhelm K. Roentgen, for discovery of Roentgen rays.	Jacobus H. van 't Hoff; laws of chemical dynamics and osmotic pressure in solutions.	Emil A. von Behring, f work on serum therap against diphtheria.
1902	Hendrik A. Lorentz and Pieter Zeeman, for work on influence of magnetism upon radiation.	Emil Fischer, for experiments in sugar and purin groups of substances.	Sir Ronald Ross, for wo on malaria.
1903	A. Henri Becquerel, work on discovery of spontaneous radioactivity. Pierre and Marie Curie, for investigation of phenomena of radiation.	Svante A. Arrhenius, for his electrolytic theory of dissociation.	Niels R. Finsen, for h treatment of lupus vu garis, with concen trated light rays.
1904	John Strutt (Lord Rayleigh) for discovery of argon in investigating gas density.	Sir William Ramsay; discovery and determination of place of inert gaseous elements in air.	Ivan P. Pavlov, for wo on the physiology digestion.
1905	Philipp Lenard, for work with cathode rays.	Adolf von Baeyer, for work on organic dyes and hydroaromatic combinations.	Robert Koch, for work o tuberculosis.
1906	Joseph J. Thomson, for investigations on passage of electricity through gases.	Henri Moissan, for isolation of fluorine, and introduction of electric furnace.	Camillo Golgi and San tiago Ramón y Caja for work on structu of the nervous syste
1907	Albert A. Michelson, for spectroscopic and metrologic investigations.	Eduard Buchner; discovery of cell-less fermentation and investigations in biological chem.	Charles L. A. Laveran, f work with protozoa the generation of di ease.
1908	Gabriel Lippmann, for method of reproducing colors by photography.	Ernest Rutherford, for investigations into disintegration of elements and chemistry of radioactive substances.	Paul Ehrlich and Él Metchnikoff, for wo on immunity.
1909	Guglielmo Marconi and Ferdinand Braun, for development of wireless.	Wilhelm Ostwald, for work on catalysis and investigations into principles governing chemical equilibrium and reaction rates.	Theodor Kocher, for wo on the thyroid gland.
1910	Johannes D. van der Waals, for work with the equation of state for gases and liquids.	Otto Wallach, for work in the field of alicyclic compounds.	Albrecht Kossel, f achievements in t chemistry of the cell.
1911	Wilhelm Wien, for his laws governing the radiation of heat.	Marie Curie, for discovery of elements radium and polonium.	Allvar Gullstrand, f work on the dioptri of the eye.
1912	Gustaf Dalén, for discovery of automatic regulators used in lighting lighthouses and light buoys.	Victor Grignard, for reagent discovered by and named after him; and Paul Sabatier, for the methods of hydrogenating organic compounds.	Alexis Carrel, for work o vascular ligature an grafting of blood ve sels and organs.

Year	Physics	Chemistry	Medicine
1913	H. Kamerlingh Onnes, for work leading to production of liquid helium.	Alfred Werner, for linking up atoms within the molecule.	Charles Richet, for work on anaphylaxy.
1914	Max von Laue, for discovery of defraction of Roentgen rays passing through crystals.	Theodore W. Richards, for determining atomic weight of many chemical elements.	Robert Bárány, for work on physiology and pathology of the vestibular system.
1915	W. H. Bragg and W. L. Bragg, for analysis of crystal structure by means of X rays.	Richard Willstätter, for research into coloring matter of plants, especially chlorophyll.	No award.
1917	Charles G. Barkla, discovery of Roentgen radiation of the elements.	No award.	No award.
1918	Max Planck, for discoveries in connection with quantum theory.	Fritz Haber, for synthetic production of ammonia.	No award.
1919	Johannes Stark, discovery of Doppler effect in Canal rays and decomposition of spectrum lines by electric fields.	No award.	Jules Bordet, for discoveries in connection with immunity.
1920	Charles E. Guillaume, for discoveries of anomalies in nickel steel alloys.	Walther Nernst, for work in thermochemistry.	August Krogh, discovery of regulation of capillaries' motor mechanism.
1921	Albert Einstein, for discovery of the law of the photoelectric effect.	Frederick Soddy, for investigations into origin and nature of isotopes.	No award.
1922	Niels Bohr, for investigations of structure of atoms and radiations emanating from them.	Francis W. Aston, for discovery of isotopes in nonradioactive elements and for discovery of the whole number rule.	In 1923 the 1922 prize was divided between Archibald V. Hill for discovery relating to heat-production in muscles; and Otto Meyerhof, for correlation between consumption of oxygen and production of lactic acid in muscles.
1923	Robert A. Millikan, work on elementary charge of electricity and photoelectric phenomena.	Fritz Pregl, for method of microanalysis of organic substances discovered by him.	Frederick G. Banting and John J. R. Macleod, for discovery of insulin.
1924	Karl M. G. Siegbahn, for investigations in X-ray spectroscopy.	No award.	Willem Einthoven, for discovering the mechanism of the electrocardiogram.
1925	James Franck and Gustav Hertz, for discovery of laws governing impact of electrons upon atoms.	In 1926 the 1925 prize was awarded to Richard Zsigmondy, for work on the heterogeneous nature of colloid solutions.	No award.
1926	Jean Perrin, for works on discontinuous structure of matter and discovery of the equilibrium of sedimentation.	The Svedberg, for work on disperse systems.	Johannes Fibiger, for discovery of the Spiroptera carcinoma.
1927	Arthur H. Compton, discovery of Compton phenomenon; and Charles T. R. Wilson, for method of perceiving paths taken by electrically charged particles.	In 1928 the 1927 prize was awarded to Heinrich Wieland, for investigations of bile acids and kindred substances.	Julius Wagner-Jauregg, for use of malaria inoculation in treatment of dementia paralytica.

Nobel Prizes—(cont.)

Year	Physics	Chemistry	Medicine
1928	In 1929 the 1928 prize was awarded to Owen W. Richardson, for work on the phenomenon of thermionics and discovery of the Richardson Law.	Adolf Windaus, for investigations on constitution of the sterols and their connection with vitamins.	Charles Nicolle, for wor on typhus exanthemat icus.
1929	Prince Louis Victor de Broglie, for discovery of the wave character of electrons.	Arthur Harden and Hans K. A. S. von Euler-Chelpin, for research of fermentation of sugars.	Christiaan Eijkman, fo discovery of the anti neuritic vitamins; an Sir Frederick G. Hop kins, for discovery o growth-promoting vita mins.
1930	Sir Chandrasekhara V. Raman, for work on diffusion of light and discovery of the Raman effect.	Hans Fischer, for work on coloring matter of blood and leaves and for his synthesis of hemin.	Karl Landsteiner, for dis covery of human bloo groups.
1931	No award.	Karl Bosch and Friedrich Bergius, for invention and development of chemical high-pressure methods.	Otto H. Warburg, for dis covery of the characte and mode of action o the respiratory ferment
1932	In 1933 the prize for 1932 was awarded to Werner Heisenberg, for creation of the quantum mechanics.	Irving Langmuir, for work in realm of surface chemistry.	Sir Charles S. Sherringto and Edgar D. Adrian for discoveries of th function of the neu ron.
1933	Erwin Schrödinger and Paul A. M. Dirac, for discovery of new fertile forms of the atomic theory.	No award.	Thomas H. Morgan, fo discoveries on heredi tary function of th chromosomes.
1934	No award.	Harold C. Urey, for discovery of heavy hydrogen.	George H. Whipple George R. Minot, and William P. Murphy, fo discovery of liver ther apy against anemias.
1935	James Chadwick, for discovery of the neutron.	Frédéric and Irène Joliot-Curie, for synthesis of new radioactive elements.	Hans Spemann, for dis covery of the organizer effect in embryonic de velopment.
1936	Victor F. Hess, for discovery of cosmic radiation; and Carl D. Anderson, for discovery of the positron.	Peter J. W. Debye, for investigations on dipole moments and diffraction of X rays and electrons in gases.	Sir Henry H. Dale and Otto Loewi, for discoveries on chemical transmission of nerve impulses.
1937	Clinton J. Davisson and George P. Thomson, for discovery of diffraction of electrons by crystals.	Walter N. Haworth, for research on carbohydrates and vitamin C; and Paul Karrer, for work on carotenoids, flavins and vitamins A and B.	Albert Szent-Györgyi von Nagyrapolt, for discoveries on biological combustion.
1938	Enrico Fermi, for identification of new radioactivity elements and discovery of nuclear reactions effected by slow neutrons.	Richard Kuhn, for carotinoid study and vitamin research (declined the prize).	Corneille Heymans, fo importance of sinu and aorta mechanism in the regulation o respiration.

Year	Physics	Chemistry	Medicine
939	Ernest Orlando Lawrence, for the development of the cyclotron.	Adolf Friedrich Johann Butenandt, for work on sexual hormones (declined the prize) and Leopold Ružička, work with polymetylenes.	Gerhard Domagk, antibacterial effect of prontocilate.
943	Otto Stern, for detection of magnetic momentum of protons.	George Hevesy De Heves, for work on use of isotopes as chemical indicators.	Henrik Dam, Edward A. Doisy for the discovery of the chemical nature of Vitamin K.
944	Isidor Isaac Rabi, for work on magnetic movements of atomic particles.	Otto Hahn, for work on atomic fission.	Joseph Erlanger and Herbert Spencer Gasser, for work on functions of the nerve threads.
945	Wolfgang Pauli, for work on atomic fissions.	Artturi Ilmari Virtanen, for research in the field of conservation of fodder.	Sir Alexander Fleming, Ernst Boris Chain, and Sir Howard Florey, for discovery of penicillin.
946	Percy Williams Bridgman, studies and inventions in high-pressure physics.	James B. Sumner, crystallizing of enzymes. John H. Northrop and Wendell M. Stanley, preparing enzymes and virus proteins in pure form.	Herman J. Muller, hereditary effects of X ray on genes.
947	Sir Edward Appleton, for discovery of layer which reflects radio short waves in the ionosphere.	Sir Robert Robinson, for research in plant substances.	Carl F. and Gerty T. Cori, for work on animal starch metabolism; Bernardo A. Houssay, for hormone study of pituitary gland.
948	Patrick M. S. Blackett, for improvement on Wilson chamber and for discoveries in cosmic radiation.	Arne Tiselius, for biochemical discoveries and isolation of mouse paralysis virus.	Paul Mueller, for discovery of insect-killing properties of DDT.
949	Hideki Yukawa, for mathematical prediction, 14 years ago, of the meson.	William Francis Giauque, for research in thermodynamics, especially effects of low temperature.	Walter Rudolf Hess, for research on brain control of body; and Antonio Caetano de Abreu Freire Egas Moniz, for development of brain operation to treat mental disease.
950	Cecil Frank Powell, for method of photographic study of atom nucleus, and for discoveries about mesons.	Otto Diels and Kurt Adler, for dien synthesis for artificial manufacture of odors and complicated compounds.	Philip S. Hench, Edward C. Kendall, and Tadeus Reichstein, for discoveries about hormones of adrenal cortex.

(For 1951 Nobel Prize winners, *see* Nobel Prizes in index.)

The Hall of Fame

The Hall of Fame for Great Americans, established in 1900 on the campus of New York University, is an open-air colonnade containing busts of 78 of the 83 persons so far honored for national achievements. New names are voted on every five years by a committee of 100 men and women from all the states. To be elected to the Hall of Fame, an individual must have been dead more than 25 years (before 1922, the stipulation was 10 years), must have been a citizen of the U. S., and must receive three-fifths of the committee vote. Nominations may be made by any citizen. Last election, 1950.

Names	Elected	Names	Elected
John Adams (statesman)	1900	George Bancroft (historian)	1910
John Quincy Adams (statesman)	1905	Henry Ward Beecher (clergyman)	1900
Louis Agassiz (naturalist)	1915	Alexander Graham Bell (inventor)	1950
Susan B. Anthony* (reformer)	1950	Daniel Boone (explorer)	1915
John James Audubon (naturalist)	1900	Edwin Booth (actor)	1925

The Hall of Fame—(cont.)

Names	Elected
Phillips Brooks (clergyman)	1910
William Cullen Bryant (poet)	1910
William Ellery Channing (clergyman)	1900
Rufus Choate (lawyer)	1915
Henry Clay (statesman)	1900
Samuel L. Clemens (Mark Twain) (author)	1920
Grover Cleveland (statesman)	1935
James Fenimore Cooper (author)	1910
Peter Cooper (manufacturer)	1900
Charlotte S. Cushman (actress)	1915
James Buchanan Eads (engineer)	1920
Jonathan Edwards (clergyman)	1900
Ralph Waldo Emerson (author)	1900
David G. Farragut (naval officer)	1900
Stephen C. Foster (song composer)	1940
Benjamin Franklin (statesman)	1900
Robert Fulton (inventor)	1900
Josiah Willard Gibbs* (physicist)	1950
William Crawford Gorgas (physician)	1950
Ulysses S. Grant (statesman)	1900
Asa Gray (botanist)	1900
Alexander Hamilton (statesman)	1915
Nathaniel Hawthorne (author)	1900
Joseph Henry (physicist)	1915
Patrick Henry (statesman)	1920
Oliver Wendell Holmes (author)	1910
Mark Hopkins (educator)	1915
Elias Howe (inventor)	1915
Washington Irving (author)	1900
Andrew Jackson (statesman)	1910
Thomas Jefferson (statesman)	1900
John Paul Jones (naval officer)	1925
James Kent (jurist)	1900
Sidney Lanier (poet)	1945
Robert E. Lee (military officer)	1900
Abraham Lincoln (statesman)	1900
Henry W. Longfellow (poet)	1900
James Russell Lowell (poet)	1905
Mary Lyon (educator)	1905
James Madison (statesman)	1905
Horace Mann (educator)	1900
John Marshall (jurist)	1900
Matthew F. Maury (oceanographer)	1930
Maria Mitchell (astronomer)	1905
James Monroe (statesman)	1930
Samuel F. B. Morse (inventor)	1900
William T. G. Morton (dentist)	1920
John Lothrop Motley (historian)	1910
Simon Newcomb (astronomer)	1935
Thomas Paine* (philosopher)	1945
Alice Freeman Palmer (educator)	1920
Francis Parkman (historian)	1915
George Peabody (merchant)	1900
William Penn (colonizer)	1935
Edgar Allan Poe (author)	1910
Walter Reed (surgeon)	1945
Theodore Roosevelt* (statesman)	1950
Augustus Saint-Gaudens (sculptor)	1920
William T. Sherman (army officer)	1905
Joseph Story (jurist)	1900
Harriet Beecher Stowe (author)	1910
Gilbert Charles Stuart (painter)	1900
Booker T. Washington (educator)	1945
George Washington (statesman)	1900
Daniel Webster (statesman)	1900
J. A. McNeill Whistler (painter)	1930
Walt Whitman (poet)	1930
Eli Whitney (inventor)	1900
John Greenleaf Whittier (poet)	1905
Emma Willard (educator)	1905
Frances Elizabeth Willard (reformer)	1910
Roger Williams (clergyman)	1920
Woodrow Wilson* (statesman)	1950

* Not yet represented by a bust. NOTE: In the 1950 election, the following persons received over 10 votes but did not receive the necessary two-thirds of the committee vote: Andrew Carnegie (industrialist), Dorothea Lynde Dix (reformer), Henry George (political economist), Thomas Jonathan (Stonewall) Jackson (military officer), Henry James (author), William James (psychologist), Henry David Thoreau (author), George Westinghouse (inventor), Wilbur Wright (inventor).

Pulitzer Prize Awards

Source: Columbia University, New York. (For years not listed, no award made.)

Pulitzer Prizes in Journalism

Meritorious Public Service

1918 *The New York Times*
1919 *Milwaukee Journal*
1921 *Boston Post*
1922 *The* (N. Y.) *World*
1923 *Memphis Commercial Appeal*
1924 *The* (N. Y.) *World*
1926 *The* (Columbus, Ga.) *Enquirer Sun*
1927 *Canton* (Ohio) *Daily News*
1928 *Indianapolis Times*
1929 *The* (N. Y.) *Evening World*
1931 *Atlanta Constitution*
1932 *Indianapolis News*
1933 *New York World-Telegram*
1934 *Medford* (Oreg.) *Mail Tribune*
1935 *The Sacramento Bee*
1936 *The Cedar Rapids* (Iowa) *Gazette*
1937 *St. Louis Post-Dispatch*
1938 *The Bismarck* (N. Dak.) *Tribune*
Special Bronze Plaque: *Edmonton* (Alberta) *Journal*
1939 *The Miami Daily News*
1940 *Waterbury* (Conn.) *Republican and American*
1941 *St. Louis Post-Dispatch*
1942 *Los Angeles Times*
1943 *The* (Omaha) *World-Herald*
1944 *The New York Times*
1945 *The Detroit Free Press*
1946 *The Scranton* (Pa.) *Times*
1947 *The* (Baltimore) *Sun*
1948 *The St. Louis Post-Dispatch*
1949 *The* (Lincoln) *Nebraska State Journal*
1950 *Chicago Daily News* and *The St. Louis Post-Dispatch*
1951 *The Miami Herald* and *The Brooklyn Eagle*

Editorial

1917 *New York Tribune*
1918 *The* (Louisville, Ky.) *Courier-Journal*

1920 HARVEY E. NEWBRANCH ([Omaha] *Evening World-Herald*)
1922 FRANK M. O'BRIEN (*The New York Herald*)
1923 WILLIAM ALLEN WHITE (*The Emporia* [Kans.] *Gazette*)
1924 *The Boston Herald*
Special prize: FRANK I. COBB (*The* [N. Y.] *World*)
1925 *Charleston* (S. C.) *News and Courier*
1926 *The New York Times* (EDWARD M. KINGSBURY)
1927 *The Boston Herald* (F. LAURISTON BULLARD)
1928 GROVER CLEVELAND HALL (*Montgomery* [Ala.] *Advertiser*)
1929 LOUIS ISAAC JAFFE (*Norfolk Virginian-Pilot*)
1931 CHARLES S. RYCKMAN (*Fremont* [Nebr.] *Tribune*)
1933 *The Kansas City* (Mo.) *Star*
1934 E. P. CHASE (*Atlantic* [Iowa] *News Telegraph*)
1936 FÉLIX MORLEY (*The Washington* [D. C.] *Post*)
GEORGE B. PARKER (The Scripps-Howard Newspapers)
1937 JOHN W. OWENS (*The* [Baltimore] *Sun*)
1938 W. W. WAYMACK (*The* [Des Moines] *Register and Tribune*)
1939 RONALD G. CALLVERT (*The* [Portland] *Oregonian*)
1940 BART HOWARD (*St. Louis Post-Dispatch*)
1941 REUBEN MAURY ([N. Y.] *Daily News*)
1942 GEOFFREY PARSONS (*New York Herald Tribune*)
1943 FORREST W. SEYMOUR (*The* [Des Moines] *Register and Tribune*)
1944 *The Kansas City* (Mo.) *Star* (HENRY J. HASKELL)
1945 GEORGE W. POTTER (*The Providence* [R. I.] *Journal-Bulletin*)
1946 HODDING CARTER (*The* [Greenville, Miss.] *Delta Democrat-Times*)
1947 WILLIAM H. GRIMES (*The* [N. Y.] *Wall Street Journal*)
1948 VIRGINIUS DABNEY (*Richmond Times-Dispatch*)
1949 JOHN H. CRIDER (*The Boston Herald*)
HERBERT ELLISTON (*The Washington Post*)
1950 CARL M. SAUNDERS (*Jackson* [Mich.] *Citizen Patriot*)
1951 WILLIAM H. FITZPATRICK (*The New Orleans States*)

Correspondence

1929 PAUL SCOTT MOWRER (*Chicago Daily News*)
1930 LELAND STOWE (*New York Herald Tribune*)
1931 H. R. KNICKERBOCKER (*Philadelphia Public Ledger* and *New York Evening Post*)
1932 WALTER DURANTY (*The New York Times*) CHARLES G. ROSS (*St. Louis Post-Dispatch*)
1933 EDGAR ANSEL MOWRER (*Chicago Daily News*)
1934 FREDERICK T. BIRCHALL (*The New York Times*)
1935 ARTHUR KROCK (*The New York Times*)
1936 WILFRED C. BARBER (*The Chicago Tribune*)
1937 ANNE O'HARE MCCORMICK (*The New York Times*)
1938 ARTHUR KROCK (*The New York Times*)
1939 LOUIS P. LOCHNER (The Associated Press)
1940 OTTO D. TOLISCHUS (*The New York Times*)
1941 Group award *
1942 CARLOS P. ROMULO (*The* [Manilla] *Philippines Herald*)
1943 HANSON W. BALDWIN (*The New York Times*)
1944 ERNIE PYLE (Scripps-Howard Newspaper Alliance)
1945 HAROLD V. (HAL) BOYLE (The Associated Press)
1946 ARNALDO CORTESI (*New York Times*)
1947 BROOKS ATKINSON (*New York Times*)
1948 Discontinued

* In place of an individual Pulitzer Prize for foreign correspondence, the Trustees approved the recommendation of the Advisory Board that a bronze plaque or scroll be designed and executed to recognize and symbolize the public services and the individual achievements of American news reporters in the war zones of Europe, Asia and Africa from the beginning of the war.

Cartoon

1922 ROLLIN KIRBY (*The* [N. Y.] *World*)
1924 JAY NORWOOD DARLING (*New York Tribune*)
1925 ROLLIN KIRBY (*The* [N. Y.] *World*)
1926 D. R. FITZPATRICK (*St. Louis Post-Dispatch*)
1927 NELSON HARDING (*Brooklyn Daily Eagle*)
1928 NELSON HARDING (*Brooklyn Daily Eagle*)
1929 ROLLIN KIRBY (*The* [N. Y.] *World*)
1930 CHARLES R. MACAULEY (*Brooklyn Daily Eagle*)
1931 EDMUND DUFFY (*The* [Baltimore] *Sun*)
1932 JOHN T. MCCUTCHEON (*The Chicago Tribune*)
1933 HAROLD MORTON TALBURT (*Washington Daily News*)
1934 EDMUND DUFFY (*The* [Baltimore] *Sun*)
1935 ROSS A. LEWIS (*Milwaukee Journal*)
1937 CLARENCE DANIEL BATCHELOR ([N. Y.] *Daily News*)
1938 VAUGHN SHOEMAKER (*Chicago Daily News*)
1939 CHARLES G. WERNER (*The* [Oklahoma City] *Daily Oklahoman*)
1940 EDMUND DUFFY (*The* [Baltimore] *Sun*)
1941 JACOB BURCK (*The* [Chicago] *Times*)
1942 HERBERT LAWRENCE BLOCK (NEA Service)
1943 JAY NORWOOD DARLING (*New York Herald Tribune*)

1944 CLIFFORD K. BERRYMAN (*The Washington* [D. C.] *Evening Star*)
1945 BILL MAULDIN (United Feature Syndicate, Inc.)
1946 BRUCE ALEXANDER RUSSELL (*Los Angeles Times*)
1947 VAUGHN SHOEMAKER (*Chicago Daily News*)
1948 RUBE GOLDBERG (*The* [N. Y.] *Sun*)
1949 LUTE PEASE (*The Newark Evening News*)
1950 JAMES T. BERRYMAN (*Washington* [D. C.] *Evening Star*)
1951 REG (REGINALD W.) MANNING (*The* [Phoenix] *Arizona Republic*)

News Photography

1942 MILTON BROOKS (*The Detroit News*)
1943 FRANK NOEL (The Associated Press)
1944 FRANK FILAN (The Associated Press)
EARLE L. BUNKER (*The* [Omaha] *World-Herald*)
1945 JOE ROSENTHAL (The Associated Press)
1947 ARNOLD HARDY
1948 FRANK CUSHING (*Boston Traveler*)
1949 NAT FEIN (*N. Y. Herald Tribune*)
1950 BILL CROUCH (*Oakland* [Calif.] *Tribune*)
1951 MAX DESFOR (The Associated Press)

National Telegraphic Reporting

1942 LOUIS STARK (*The New York Times*)
1944 DEWEY L. FLEMING (*The* [Baltimore] *Sun*)
1945 JAMES B. RESTON (*The New York Times*)
1946 EDWARD A. HARRIS (*St. Louis Post-Dispatch*)
1947 EDWARD T. FOLLIARD (*The Washington* [D. C.] *Post*)

National Reporting

1948 BERT ANDREWS (*New York Herald Tribune*)
NAT S. FINNEY (*The Minneapolis Tribune*)
1949 C. P. TRUSSELL (*The N. Y. Times*)
1950 EDWIN O. GUTHMAN (*Seattle Times*)
1951 No award*

* It was announced by Columbia University that the outstanding achievement in this field was the exclusive interview with President Truman by Arthur Krock of *The New York Times*. However, as Mr. Krock was a member of the advisory board which makes the award recommendations, no award was made.

International Telegraphic Reporting

1942 LAURENCE EDMUND ALLEN (The Associated Press)
1943 IRA WOLFERT (North American Newspaper Alliance, Inc.)
1944 DANIEL DE LUCE (The Associated Press)
1945 MARK S. WATSON (*The* [Baltimore] *Sun*)
1946 HOMER W. BIGART (*New York Herald Tribune*)
1947 EDDY GILMORE (The Associated Press)

International Reporting

1948 PAUL W. WARD (*The* [Baltimore] *Sun*)
1949 PRICE DAY (*The* [Baltimore] *Sun*)
1950 EDMUND STEVENS (*Christian Science Monitor*)
1951 KEYES BEECH and FRED SPARKS (*Chicago Daily News*); HOMER BIGART and MARGUERITE HIGGINS (*N.Y. Herald Tribune*); RELMAN MORIN and DON WHITEHEAD (The Associated Press)

Reporting

1917 HERBERT BAYARD SWOPE (*The* [N. Y.] *World*)
1918 HAROLD A. LITTLEDALE (*New York Evening Post*)
1920 JOHN J. LEARY, JR. (*The* [N. Y.] *World*)
1921 LOUIS SEIBOLD (*The* [N. Y.] *World*)
1922 KIRKE L. SIMPSON (The Associated Press)
1923 ALVA JOHNSTON (*New York Times*)
1924 MAGNER WHITE (*San Diego Sun*)
1925 JAMES W. MULROY and ALVIN H. GOLDSTEIN (*Chicago Daily News*)
1926 WILLIAM BURKE MILLER (*The* [Louisville, Ky.] *Courier-Journal*)
1927 JOHN T. ROGERS (*St. Louis Post-Dispatch*)
1929 PAUL Y. ANDERSON (*St. Louis Post-Dispatch*)
1930 RUSSELL D. OWEN (*The New York Times*)
Special award: W. O. DAPPING (*Auburn* [N. Y.] *Citizen*)
1931 A. B. MACDONALD (*The Kansas City* [Mo.] *Star*)
1932 W. C. RICHARDS, D. D. MARTIN, J. S. POOLER, F. D. WEBB, J. N. W. SLOAN (all of *The Detroit Free Press*)
1933 FRANCIS A. JAMIESON (The Associated Press)
1934 ROYCE BRIER (*San Francisco Chronicle*)
1935 WILLIAM H. TAYLOR (*New York Herald Tribune*)
1936 LAUREN D. LYMAN (*The New York Times*)
1937 JOHN J. O'NEILL (*New York Herald Tribune*), WILLIAM LEONARD LAURENCE (*The New York Times*), HOWARD W. BLAKESLEE (The Associated Press), GOBIND BEHARI LAL (Universal Service), DAVID DIETZ (The Scripps-Howard Newspapers)
1938 RAYMOND SPRIGLE (*Pittsburgh Post-Gazette*)
1939 THOMAS L. STOKES (*New York World-Telegram*)
1940 S. BURTON HEATH (*New York World-Telegram*)
1941 WESTBROOK PEGLER (*New York World-Telegram*)
1942 STANTON DELAPLANE (*San Francisco Chronicle*)
1943 GEORGE WELLER (*Chicago Daily News*)
1944 PAUL SCHOENSTEIN and associates (*New York Journal-American*)
1945 JACK S. MCDOWELL (*The* [San Francisco] *Call-Bulletin*)
1946 WILLIAM LEONARD LAURENCE (*The New York Times*)

947 Frederick Woltman (*New York World-Telegram*)

Local Reporting

948 George E. Goodwin (*The Atlanta Journal*)
949 Malcolm Johnson (*The* [N. Y.] *Sun*)
950 Meyer Berger (*The New York Times*)
951 Edward S. Montgomery (*The San Francisco Examiner*)

Special Citation

941 *The New York Times* for the public educational value of its foreign news report, exemplified by its scope, by excellence of writing and presentation, and supplementary background information, illustration, and interpretation.
944 Byron Price, Director of the Office of Censorship, for the creation and administration of the newspaper and radio codes.
945 Mrs. William Allen White, for her husband's interest and services during the past seven years as a member of the Advisory Board of the Graduate School of Journalism, Columbia University. The cartographers of the American press whose maps of the war fronts have helped notably to clarify and increase public information on the progress of the Armies and Navies.
1947 (Pulitzer centennial year.) Columbia University and the Graduate School of Journalism, for their efforts to maintain and advance the high standards governing the Pulitzer Prize awards. The St. Louis *Post-Dispatch*, for its unswerving adherence to the public and professional ideals of its founder and its constructive leadership in the field of American journalism.
1948 Dr. Frank D. Fackenthal, for his interest and service during the past years.
1951 Cyrus L. Sulzberger (*The New York Times*) for his exclusive interview with Archbishop Stepinatz in a Yugoslav prison.

History of the Services Rendered to the Public by the American Press during Preceding Year
1918 Minna Lewison and Henry Beetle Hough

Pulitzer Prizes in Letters

Novel

1918 *His Family*. By Ernest Poole
1919 *The Magnificent Ambersons*. By Booth Tarkington
1921 *The Age of Innocence*. By Edith Wharton
1922 *Alice Adams*. By Booth Tarkington
1923 *One of Ours*. By Willa Cather
1924 *The Able McLaughlins*. By Margaret Wilson
1925 *So Big*. By Edna Ferber
1926 *Arrowsmith*. By Sinclair Lewis
1927 *Early Autumn*. By Louis Bromfield
1928 *The Bridge of San Luis Rey*. By Thornton Wilder
1929 *Scarlet Sister Mary*. By Julia Peterkin
1930 *Laughing Boy*. By Oliver La Farge
1931 *Years of Grace*. By Margaret Ayer Barnes
1932 *The Good Earth*. By Pearl S. Buck
1933 *The Store*. By T. S. Stribling
1934 *Lamb in His Bosom*. By Caroline Miller
1935 *Now in November*. By Josephine Winslow Johnson
1936 *Honey in the Horn*. By Harold L. Davis
1937 *Gone With the Wind*. By Margaret Mitchell
1938 *The Late George Apley*. By John Phillips Marquand
1939 *The Yearling*. By Marjorie Kinnan Rawlings
1940 *The Grapes of Wrath*. By John Steinbeck
1942 *In This Our Life*. By Ellen Glasgow
1943 *Dragon's Teeth*. By Upton Sinclair
1944 *Journey in the Dark*. By Martin Flavin
1945 *A Bell for Adano*. By John Hersey
1947 *All the King's Men*. By Robert Penn Warren
1948 *Tales of the South Pacific*. By James A. Michener
1949 *Guard of Honor*. By James Gould Cozzens
1950 *The Way West*. By A. B. Guthrie, Jr.
1951 *The Town*. By Conrad Richter

Drama

1918 *Why Marry?* By Jesse Lynch Williams
1920 *Beyond the Horizon*. By Eugene O'Neill
1921 *Miss Lulu Bett*. By Zona Gale
1922 *Anna Christie*. By Eugene O'Neill
1923 *Icebound*. By Owen Davis
1924 *Hell-Bent Fer Heaven*. By Hatcher Hughes
1925 *They Knew What They Wanted*. By Sidney Howard
1926 *Craig's Wife*. By George Kelly
1927 *In Abraham's Bosom*. By Paul Green
1928 *Strange Interlude*. By Eugene O'Neill
1929 *Street Scene*. By Elmer L. Rice
1930 *The Green Pastures*. By Marc Connelly
1931 *Alison's House*. By Susan Glaspell
1932 *Of Thee I Sing*. By George S. Kaufman, Morrie Ryskind & Ira Gershwin
1933 *Both Your Houses*. By Maxwell Anderson
1934 *Men in White*. By Sidney Kingsley
1935 *The Old Maid*. By Zoe Akins
1936 *Idiot's Delight*. By Robert E. Sherwood

1937 *You Can't Take It With You.* By Moss Hart and George S. Kaufman
1938 *Our Town.* By Thornton Wilder
1939 *Abe Lincoln in Illinois.* By Robert E. Sherwood
1940 *The Time of Your Life.* By William Saroyan
1941 *There Shall Be No Night.* By Robert E. Sherwood
1943 *The Skin of Our Teeth.* By Thornton Wilder
1945 *Harvey.* By Mary Chase
1946 *State of the Union.* By Russel Crouse and Howard Lindsay
1948 *A Streetcar Named Desire.* By Tennessee Williams.
1949 *Death of a Salesman.* By Arthur Miller
1950 *South Pacific.* By Richard Rodgers, Oscar Hammerstein II, and Joshua Logan

United States History

1917 *With Americans of Past and Present Days.* By His Excellency J. J. Jusserand, Ambassador of France to the United States
1918 *A History of the Civil War, 1861–1865.* By James Ford Rhodes
1920 *The War with Mexico.* By Justin H. Smith
1921 *The Victory at Sea.* By William Sowden Sims in collaboration with Burton J. Hendrick
1922 *The Founding of New England.* By James Truslow Adams
1923 *The Supreme Court in United States History.* By Charles Warren
1924 *The American Revolution—A Constitutional Interpretation.* By Charles Howard McIlwain
1925 *A History of the American Frontier.* By Frederic L. Paxson
1926 *The History of the United States.* By Edward Channing
1927 *Pinckney's Treaty.* By Samuel Flagg Bemis
1928 *Main Currents in American Thought,* 2 vols. By Vernon Louis Parrington
1929 *The Organization and Administration of the Union Army, 1861–1865.* By Fred Albert Shannon
1930 *The War of Independence.* By Claude H. Van Tyne
1931 *The Coming of the War: 1914.* By Bernadotte E. Schmitt
1932 *My Experiences in the World War.* By John J. Pershing
1933 *The Significance of Sections in American History.* By Frederick J. Turner
1934 *The People's Choice.* By Herbert Agar
1935 *The Colonial Period of American History.* By Charles McLean Andrews
1936 *The Constitutional History of the United States.* By Andrew C. McLaughlin
1937 *The Flowering of New England.* By Van Wyck Brooks
1938 *The Road to Reunion, 1865–1900.* By Paul Herman Buck
1939 *A History of American Magazines.* By Frank Luther Mott
1940 *Abraham Lincoln: The War Years* By Carl Sandburg
1941 *The Atlantic Migration, 1607–1860.* By Marcus Lee Hansen
1942 *Reveille in Washington.* By Margaret Leech
1943 *Paul Revere and the World He Lived In.* By Esther Forbes
1944 *The Growth of American Thought.* By Merle Curti
1945 *Unfinished Business.* By Stephen Bonsal
1946 *The Age of Jackson.* By Arthur M. Schlesinger, Jr.
1947 *Scientists Against Time.* By James Phinney Baxter, 3rd
1948 *Across the Wide Missouri.* By Bernard DeVoto
1949 *The Disruption of American Democracy.* By Roy Franklin Nichols
1950 *Art and Life in America.* By Oliver W. Larkin
1951 *The Old Northwest, Pioneer Period 1815–1840, Vols. I and II.* By R. Carlyle Buley

Biography

1917 *Julia Ward Howe.* By Laura E. Richards and Maude Howe Elliott assisted by Florence Howe Hall
1918 *Benjamin Franklin, Self-Revealed.* By William Cabell Bruce
1919 *The Education of Henry Adams.* By Henry Adams
1920 *The Life of John Marshall.* By Albert J. Beveridge
1921 *The Americanization of Edward Bok.* By Edward Bok
1922 *A Daughter of the Middle Border.* By Hamlin Garland
1923 *The Life and Letters of Walter H. Page.* By Burton J. Hendrick
1924 *From Immigrant to Inventor.* By Michael Idvorsky Pupin
1925 *Barrett Wendell and His Letters.* By M. A. DeWolfe Howe
1926 *The Life of Sir William Osler.* By Harvey Cushing
1927 *Whitman.* By Emory Holloway
1928 *The American Orchestra and Theodore Thomas.* By Charles Edward Russell
1929 *The Training of an American. The Earlier Life and Letters of Walter H. Page.* By Burton J. Hendrick
1930 *The Raven.* By Marquis James
1931 *Charles W. Eliot.* By Henry James
1932 *Theodore Roosevelt.* By Henry F. Pringle
1933 *Grover Cleveland.* By Allan Nevins
1934 *John Hay.* By Tyler Dennett
1935 *R. E. Lee.* By Douglas S. Freeman
1936 *The Thought and Character of William James.* By Ralph Barton Perry
1937 *Hamilton Fish.* By Allan Nevins
1938 *Pedlar's Progress.* By Odell Shepard

Andrew Jackson (2 vols). By MARQUIS JAMES
1939 *Benjamin Franklin*. By CARL VAN DOREN
1940 *Woodrow Wilson. Life and Letters*, Vols. VII and VIII. By RAY STANNARD BAKER
1941 *Jonathan Edwards*. By OLA ELIZABETH WINSLOW
1942 *Crusader in Crinoline*. By FORREST WILSON
1943 *Admiral of the Ocean Sea*. By SAMUEL ELIOT MORISON
1944 *The American Leonardo: The Life of Samuel F. B. Morse*. By CARLTON MABEE
1945 *George Bancroft: Brahmin Rebel*. By RUSSEL BLAINE NYE
1946 *Son of the Wilderness*. By LINNIE MARSH WOLFE
1947 *The Autobiography of William Allen White*
1948 *Forgotten First Citizen: John Bigelow*. By MARGARET CLAPP
1949 *Roosevelt and Hopkins*. By ROBERT E. SHERWOOD
1950 *John Quincy Adams and the Foundations of American Foreign Policy*. By SAMUEL FLAGG BEMIS
1951 *John C. Calhoun: American Portrait*. By MARGARET LOUISE COIT

Poetry

1918* *Love Songs*. By SARA TEASDALE
1919* *Old Road to Paradise*. By MARGARET WIDDEMER
Corn Huskers. By CARL SANDBURG
1922 *Collected Poems*. By EDWIN ARLINGTON ROBINSON
1923 *The Ballad of the Harp-Weaver; A Few Figs from Thistles;* Eight Sonnets in *American Poetry, 1922, A Miscellany*. By EDNA ST. VINCENT MILLAY
1924 *New Hampshire: A Poem with Notes and Grace Notes*. By ROBERT FROST
1925 *The Man Who Died Twice*. By EDWIN ARLINGTON ROBINSON
1926 *What's O'Clock*. By AMY LOWELL
1927 *Fiddler's Farewell*. By LEONORA SPEYER
1928 *Tristram*. By EDWIN ARLINGTON ROBINSON
1929 *John Brown's Body*. By STEPHEN VINCENT BENÉT
1930 *Selected Poems*. By CONRAD AIKEN
1931 *Collected Poems*. By ROBERT FROST
1932 *The Flowering Stone*. By GEORGE DILLON
1933 *Conquistador*. By ARCHIBALD MACLEISH
1934 *Collected Verse*. By ROBERT HILLYER
1935 *Bright Ambush*. By AUDREY WURDEMANN
1936 *Strange Holiness*. By ROBERT P. TRISTRAM COFFIN
1937 *A Further Range*. By ROBERT FROST
1938 *Cold Morning Sky*. By MARYA ZATURENSKA
1939 *Selected Poems*. By JOHN GOULD FLETCHER
1940 *Collected Poems*. By MARK VAN DOREN
1941 *Sunderland Capture*. By LEONARD BACON
1942 *The Dust Which Is God*. By WILLIAM ROSE BENÉT
1943 *A Witness Tree*. By ROBERT FROST
1944 *Western Star*. By STEPHEN VINCENT BENÉT
1945 *V-Letter and Other Poems*. By KARL SHAPIRO
1947 *Lord Weary's Castle*. By ROBERT LOWELL
1948 *The Age of Anxiety*. By W. H. AUDEN
1949 *Terror and Decorum*. By PETER VIERECK
1950 *Annie Allen*. By GWENDOLYN BROOKS
1951 *Complete Poems*. By CARL SANDBURG

* Previous to the establishment of this prize in 1922, the 1918 and 1919 awards were made from gifts provided by the Poetry Society.

Music

1943 *Secular Cantata No. 2, A Free Song*. By WILLIAM SCHUMAN
1944 *Symphony No. 4* (Op. 34). By HOWARD HANSON
1945 *Appalachian Spring*. By AARON COPLAND
1946 *The Canticle of the Sun*. By LEO SOWERBY
1947 *Symphony No. 3*. By CHARLES IVES
1948 *Symphony No. 3*. By WALTER PISTON
1949 *Louisiana Story* music. By VIRGIL THOMSON
1950 *The Consul*. By GIAN-CARLO MENOTTI
1951 Music for opera *Giants in the Earth*. By DOUGLAS STUART MOORE

Special Award

1944 *Oklahoma!* By RICHARD RODGERS and OSCAR HAMMERSTEIN, 2ND

List of Academy Awards for Production, Acting, and Direction

Year	Production	Director and Movie
1928	*Wings*, Paramount	
1929	*The Broadway Melody*, M-G-M	Frank Borzage, *Seventh Heaven;* Lewis Milestone, *Two Arabian Nights*
1930	*All Quiet on the Western Front*, Universal	Frank Lloyd, *The Divine Lady*
1931	*Cimarron*, RKO Radio	Lewis Milestone, *All Quiet on the Western Front*
1932	*Grand Hotel*, M-G-M	Norman Taurog, *Skippy*
1933	*Cavalcade*, Fox	Frank Borzage, *Bad Girl*
1934	*It Happened One Night*, Columbia	Frank Lloyd, *Cavalcade*
1935	*Mutiny on the Bounty*, M-G-M	Frank Capra, *It Happened One Night*
1936	*The Great Ziegfeld*, M-G-M	John Ford, *The Informer*
		Frank Capra, *Mr. Deeds Goes to Town*

Academy Awards—(cont.)

	Production	Director and Movie
1937	*The Life of Emile Zola*, Warner	Leo McCarey, *The Awful Truth*
1938	*You Can't Take It With You*, Columbia	Frank Capra, *You Can't Take It With You*
1939	*Gone With the Wind*, Selznick–M-G-M	Victor Fleming, *Gone With the Wind*
1940	*Rebecca*, Selznick–UA	John Ford, *The Grapes of Wrath*
1941	*How Green Was My Valley*, 20th Century-Fox	John Ford, *How Green Was My Valley*
1942	*Mrs. Miniver*, M-G-M	William Wyler, *Mrs. Miniver*
1943	*Casablanca*, Warner	Michael Curtiz, *Casablanca*
1944	*Going My Way*, Paramount	Leo McCarey, *Going My Way*
1945	*The Lost Weekend*, Paramount	Billy Wilder, *The Lost Weekend*
1946	*The Best Years of Our Lives*, Goldwyn–RKO Radio	William Wyler, *The Best Years of Our Lives*
1947	*Gentleman's Agreement*, 20th Century-Fox	Elia Kazan, *Gentleman's Agreement*
1948	*Hamlet*, Rank–Two Cities–U–I	John Huston, *Treasure of Sierra Madre*
1949	*All the King's Men*, Rossen–Columbia	Joseph L. Mankiewicz, *A Letter to Three Wives*
1950	*All About Eve*, 20th Century-Fox	Joseph L. Mankiewicz, *All About Eve*

	Actress and Movie	Actor and Movie
1928	Janet Gaynor, *Seventh Heaven, Street Angel, Sunrise*	Emil Jannings, *The Way of All Flesh, The Last Command*
1929	Mary Pickford, *Coquette*	Warner Baxter, *In Old Arizona*
1930	Norma Shearer, *The Divorcee*	George Arliss, *Disraeli*
1931	Marie Dressler, *Min and Bill*	Lionel Barrymore, *A Free Soul*
1932	Helen Hayes, *The Sin of Madelon Claudet*	Fredric March, *Dr. Jekyll and Mr. Hyde*; Wallace Beery, *The Champ*
1933	Katharine Hepburn, *Morning Glory*	Charles Laughton, *The Private Life of Henry VIII*
1934	Claudette Colbert, *It Happened One Night*	Clark Gable, *It Happened One Night*
1935	Bette Davis, *Dangerous*	Victor McLaglen, *The Informer*
1936	Luise Rainer, *The Great Ziegfeld*	Paul Muni, *The Story of Louis Pasteur*
1937	Luise Rainer, *The Good Earth*	Spencer Tracy, *Captains Courageous*
1938	Bette Davis, *Jezebel*	Spencer Tracy, *Boys Town*
1939	Vivien Leigh, *Gone With the Wind*	Robert Donat, *Goodbye, Mr. Chips*
1940	Ginger Rogers, *Kitty Foyle*	James Stewart, *The Philadelphia Story*
1941	Joan Fontaine, *Suspicion*	Gary Cooper, *Sergeant York*
1942	Greer Garson, *Mrs. Miniver*	James Cagney, *Yankee Doodle Dandy*
1943	Jennifer Jones, *The Song of Bernadette*	Paul Lukas, *Watch on the Rhine*
1944	Ingrid Bergman, *Gaslight*	Bing Crosby, *Going My Way*
1945	Joan Crawford, *Mildred Pierce*	Ray Milland, *The Lost Weekend*
1946	Olivia de Havilland, *To Each His Own*	Fredric March, *The Best Years of Our Lives*
1947	Loretta Young, *The Farmer's Daughter*	Ronald Colman, *A Double Life*
1948	Jane Wyman, *Johnny Belinda*	Sir Laurence Olivier, *Hamlet*
1949	Olivia de Havilland, *The Heiress*	Broderick Crawford, *All the King's Men*
1950	Judy Holliday, *Born Yesterday*	Jose Ferrer, *Cyrano de Bergerac*

	Actress (supporting role)	Actor (supporting role)
1936	Gale Sondergaard, *Anthony Adverse*	Walter Brennan, *Come and Get It*
1937	Alice Brady, *In Old Chicago*	Joseph Schildkraut, *The Life of Emile Zola*
1938	Fay Bainter, *Jezebel*	Walter Brennan, *Kentucky*
1939	Hattie McDaniel, *Gone With the Wind*	Thomas Mitchell, *Stagecoach*
1940	Jane Darwell, *The Grapes of Wrath*	Walter Brennan, *The Westerner*
1941	Mary Astor, *The Great Lie*	Donald Crisp, *How Green Was My Valley*
1942	Teresa Wright, *Mrs. Miniver*	Van Heflin, *Johnny Eager*
1943	Katina Paxinou, *For Whom the Bell Tolls*	Charles Coburn, *The More the Merrier*
1944	Ethel Barrymore, *None But the Lonely Heart*	Barry Fitzgerald, *Going My Way*
1945	Anne Revere, *National Velvet*	James Dunn, *A Tree Grows in Brooklyn*

Academy Awards—(cont.)

	Actress (supporting role)	Actor (supporting role)
946	Anne Baxter, *The Razor's Edge*	Harold Russell, *The Best Years of Our Lives*
947	Celeste Holm, *Gentleman's Agreement*	Edmund Gwenn, *Miracle on 34th Street*
948	Claire Trevor, *Key Largo*	Walter Huston, *The Treasure of Sierra Madre*
949	Mercedes McCambridge, *All the King's Men*	Dean Jagger, *Twelve O'Clock High*
950	Josephine Hull, *Harvey*	George Sanders, *All About Eve*

Other Academy Awards for 1950

Annual Awards

rt direction (black-and-white): Hans Dreier and John Meehan, *Sunset Boulevard.*

rt direction (color): Hans Dreier and Walter Tyler, *Samson and Delilah.*

inematography (black-and-white): Robert Krasker, *The Third Man.*

inematography (color): Robert Surtees, *King Solomon's Mines.*

ostume design (black-and-white): Edith Head; Charles LeMaire, *All About Eve.*

ostume design (color): Edith Head, Dorothy Jeakins, Elois Jenssen, Gile Steele and; Wakeling, *Samson and Delilah.*

ilm editing: Ralph E. Winters and Conrad A. Nervig, *King Solomon's Mines.*

usic (scoring musical picture): Adolph Deutsch and Roger Edens, *Annie Get Your Gun.*

usic (music score of dramatic or comedy picture): Franz Waxman, *Sunset Boulevard.*

usic (song): "Mona Lisa" from *Captain Carey, USA,* Ray Evans and Jay Livingston.

Set decoration (black-and-white): Sam Comer; Ray Moyer, *Sunset Boulevard.*

Set decoration (color): Sam Comer and Ray Moyer, *Samson and Delilah.*

Short subjects (cartoon): *Gerald McBoing-Boing,* Stephen Bosustow.

Short subjects (one-reel): *Grandad of Races,* Gordon Hollingshead.

Short subjects (two-reel): *In Beaver Valley,* Walt Disney.

Sound recording: *All About Eve,* 20th Century-Fox.

Special effects: *Destination Moon,* George Pal Productions.

Writing (motion-picture story): Edna and Edward Anhalt, *Panic in the Streets.*

Writing (screenplay): Joseph L. Mankiewicz, *All About Eve.*

Writing (story and screenplay): Charles Brackett, Billy Wilder and D. M. Marshman, Jr., *Sunset Boulevard.*

Other Awards

Academy plaque: James B. Gordon and 20th Century-Fox Camera Department for design and development of Multiple Image Film Viewer.

Academy plaque: John Paul Livadary, Floyd Campbell, L. W. Russell and Columbia Pictures Corporation Sound Department for development of Multi-Track Magnetic Re-recording System.

Academy plaque: Loren L. Ryder and Paramount Sound Depart. for first studio-wide application of magnetic sound recording to motion-picture production.

Irving G. Thalberg Memorial Award: Darryl F. Zanuck.

Documentary (feature): *The Titan: Story of Michelangelo,* Classics Pictures, Inc.

Documentary (short subjects): *Why Korea?,* 20th Century-Fox Movietone.

Honorary Awards

Foreign-language film: *The Walls of Malapaga* (Franco-Italian).

Special awards: George Murphy and Louis B. Mayer.

New York Film Critics' Awards

(1—best motion picture; 2—best male performance; 3—best feminine performance; 4—best direction; 5—best foreign film; 6—special award.)

1940
1. *The Grapes of Wrath,* 20th Cent.-Fox
2. Charles Chaplin,* *The Great Dictator*
3. Katharine Hepburn, *The Philadelphia Story*
4. John Ford, *The Grapes of Wrath*
5. *The Baker's Wife* (French)

1941
1. *Citizen Kane,* RKO-Mercury
2. Gary Cooper, *Sergeant York*
3. Joan Fontaine, *Suspicion*
4. John Ford, *How Green Was My Valley*

1942
1. *In Which We Serve,* UA-Noel Coward
2. James Cagney, *Yankee Doodle Dandy*
3. Agnes Moorehead, *The Magnificent Ambersons*
4. John Farrow, *Wake Island*

1943
1. *Watch on the Rhine,* Warners
2. Paul Lukas, *Watch on the Rhine*
3. Ida Lupino, *The Hard Way*
4. George Stevens, *The More the Merrier*

* Refused award.

1944 1. *Going My Way*, Paramount
2. Barry Fitzgerald, *Going My Way*
3. Tallulah Bankhead, *Lifeboat*
4. Leo McCarey, *Going My Way*

1945 1. *The Lost Weekend*, Paramount
2. Ray Milland, *The Lost Weekend*
3. Ingrid Bergman, *Spellbound* and *The Bells of St. Mary's*
4. Billy Wilder, *The Lost Weekend*
5. (None)
6. *The True Glory* and *The Fighting Lady*

1946 1. *The Best Years of Our Lives*, RKO-Samuel Goldwyn
2. Laurence Olivier, *Henry V*
3. Celia Johnson, *Brief Encounter*
4. William Wyler, *The Best Years of Our Lives*
5. *Open City* (Italian)

1947 1. *Gentleman's Agreement*, 20th Century-Fox
2. William Powell, *Life With Father*
3. Deborah Kerr, *The Adventuress* and *Black Narcissus*
4. Elia Kazan, *Gentleman's Agreement* and *Boomerang*
5. *To Live in Peace* (Italian)

1948 1. *The Treasure of Sierra Madre*, Warners
2. Sir Laurence Olivier, *Hamlet*
3. Olivia de Havilland, *The Snake Pit*
4. John Huston, *Treasure of Sierra Madre*
5. *Paisan* (Italian)

1949 1. *All the King's Men*, Columbia
2. Broderick Crawford, *All the King's Men*
3. Olivia de Havilland, *The Heiress*
4. Carol Reed, *The Fallen Idol*
5. *The Bicycle Thief* (Italian)

1950 1. *All About Eve*, 20th Century-Fox
2. Gregory Peck, *Twelve O'Clock High*
3. Bette Davis, *All About Eve*
4. Joseph L. Mankiewicz, *All About Eve*
5. *Ways of Love* (Franco-Italian)

New York Drama Critics' Circle Awards

1935–36 *Winterset*, by Maxwell Anderson

1936–37 *High Tor*, by Maxwell Anderson

1937–38 *Of Mice and Men*, by John Steinbeck
Shadow and Substance, by Paul Vincent Carroll[1]

1938–39 (No award)
The White Steed, by Paul Vincent Carroll[1]

1939–40 *The Time of Your Life*, by William Saroyan

1940–41 *Watch on the Rhine*, by Lillian Hellman
The Corn Is Green, by Emlyn Williams[1]

1941–42 (No award)
Blithe Spirit, by Noel Coward[1]

1942–43 *The Patriots*, by Sidney Kingsley

1943–44 (No award)
Jacobowsky and the Colonel, by Franz Werfel–S. N. Behrman[1]

1944–45 *The Glass Menagerie*, by Tennessee Williams

1945–46 (No award)
Carousel, by Rodgers and Hammerstein[2]

1946–47 *All My Sons*, by Arthur Miller
No Exit, by Jean-Paul Sartre[1]
Brigadoon, by Lerner and Loewe[2]

1947–48 *A Streetcar Named Desire*, by Tennessee Williams
The Winslow Boy, by Terence Rattigan[1]

1948–49 *Death of a Salesman*, by Arthur Miller
The Madwoman of Chaillot, by Jean Giraudoux–Maurice Valency[1]
South Pacific, by Rodgers, Hammerstein, and Joshua Logan[2]

1949–50 *The Member of the Wedding*, by Carson McCullers
The Cocktail Party, by T. S. Eliot[1]
The Consul, by Gian-Carlo Menotti[2]

1950–51 *Darkness at Noon*, by Sidney Kingsley[3]
The Lady's Not for Burning, by Christopher Fry[1]
Guys and Dolls, by Abe Burrows, Jo Swerling, and Frank Loesser[2]

[1] Citation for best foreign play. [2] Citation for best musical. [3] Based on a novel by Arthur Koestler.

Awards by Music Critics' Circle of New York

1941–42 *Symphony No. 3*, by William Schuman

1942–43 *Symphony No. 1*, by Paul Creston

1943–44 *Jeremiah Symphony*, by Leonard Bernstein

1944–45 *Symphony No. 2*, by Walter Piston

1945–46 *Concerto for Cello and Orchestra*, by Samuel Barber

1946–47 *Symphony No. 3*, by Aaron Copland
Quartet No. 2, by Ernest Bloch[1]

1947–48 *Symphony No. 3*, by Wallingford Riegger

1948–49 *Variation, Chaconne and Finale*, by Norman Dello Joio

1949–50 *Symphony No. 2*, by Roger Sessions
String Quartet (1949), by Leon Kirchner[1]

[1] Award for chamber music. NOTE: No award made in 1951. Beginning 1952, awards will be made first part of year instead of midyear.

AVIATION

★

Famous Firsts in Aviation

THOUGH man succeeded in making powered flight only 45 years ago, his dreams of flying go back to mythology.

The principle of jet propulsion, for example, was understood and put into design form some 2,000 years ago by Hero, an Alexandrian philosopher. And as far back as A.D. 1232 Genghis Khan's son, Ogdai, used rockets as a "secret weapon" in an attack on the Tartar city of Kaifeng. In 1480, Leonardo da Vinci drew sketches for what we now call helicopters.

Man's first aeronautical successes came in balloons.

1782—First balloon flight. Jacques and Joseph Montgolfier of Annonay, Fr., sent up a small smoke-filled balloon about mid-November.

1783—First hydrogen-filled balloon flight. Jacques A. C. Charles, Paris physicist, supervised construction by A. J. and M. N. Robert of a 13-ft. diameter balloon which was filled with hydrogen. It got up to about 3,000 ft. and traveled about 16 mi. in a 45-min. flight (Aug. 27).

1783—First human balloon flights. A Frenchman, Jean Pilâtre de Rozier, made the first captive balloon ascension (Oct. 15). With the Marquis d'Arlandes, Pilâtre de Rozier made the first free flight, reaching a peak altitude of about 500 ft., and traveling about 5½ mi. in 20 min. (Nov. 21).

1784—First powered balloon. Gen. Jean Baptiste Marie Meusnier developed the first propeller-driven and elliptically-shaped balloon—the crew cranking three propellers on a common shaft to give the craft a speed of about 3 mi. per hr.

1784—First woman to fly. Mme. Thible, a French opera singer (June 4).

1793—First balloon flight in America. Jean Pierre Blanchard, a French pilot, made it from Philadelphia to near Woodbury, Gloucester Co., N. J., in a little over 45 min. (Jan. 9).

1794—First military use of the balloon. Jean Marie Coutelle, using a balloon built for the French Army, made two 4 hr. observation ascents. The military value of the ascents seems to have been in damage to the enemy's morale.

1797—First parachute jump. André-Jacques Garnerin dropped from about 6,500 ft. over Monceau Park in Paris in a 23-ft. diameter 'chute made of white canvas with a basket attached (Oct. 22).

1843—First air transport company. In London, William S. Henson and John Stringfellow filed articles of incorporation for the Aerial Transit Company (Mar. 24). It failed.

1852—First dirigible. Henri Giffard, a French engineer, flew in a controllable (more or less) steam engine-powered balloon, 144 ft. long and 39 ft. in diameter, inflated with 88,000 cu. ft. of coal gas. It reached 6.7 mi. per hr. on a flight from Paris to Trappe (Sept. 24).

1860—First aerial photographers. Samuel Archer King and William Black made two photos of Boston, still in existence.

1872—First gas-engine powered dirigible. Paul Haenlein, a German engineer, flew in a semi-rigid frame dirigible, powered by a 4-cylinder internal combustion engine running on coal gas drawn from the supporting bag.

1873—First transatlantic attempt. *The New York Daily Graphic* sponsored the attempt with a 400,000 cu. ft. balloon carrying a lifeboat. A rip in the bag during inflation brought collapse of the balloon and the project.

1897—First successful metal dirigible. An all-metal dirigible, designed by David Schwarz, a Hungarian, took off from Berlin's Tempelhof Field and, powered by a 16-hp. Daimler engine, got several miles before leaking gas caused it to crash (Nov. 13).

1900—First Zeppelin flight. Germany's Count Ferdinand von Zeppelin flew the first of his long series of rigid-frame airships. It attained a speed of 18 mi. per hr. and got 3½ mi. before its steering gear failed (July 2).

1903—First successful heavier-than-air machine flight. Aviation was really born on the sand dunes at Kitty Hawk, N. C., When Orville Wright crawled to his prone position between the wings of the biplane he and his brother Wilbur had built, opened the throttle of their home-made 12-hp. engine and took to the air. He covered 120 ft. in 12 sec. Later that day, in one of four flights, Wilbur stayed up 59 sec. and covered 852 ft. (Dec. 17).

1904—First airplane maneuvers. Orville Wright made the first turn with an airplane (Sept. 15); 5 days later his brother Wilbur made the first complete circle.

1905—First airplane flight over half an hour. Orville Wright kept his craft up 33 min. 17 sec. (Oct. 4.).

1906—First European airplane flight. Alberto Santos-Dumont, a Brazilian, flew a heavier-than-air machine at Bagatelle Field, Paris (Sept. 13).

1908—First airplane fatality. Lt. Thomas E. Selfridge, U. S. Army Signal Corps, was in a group of officers evaluating the Wright plane at Fort Myer, Va. He was up about 75 ft. with Orville Wright when the propeller hit a bracing wire and was broken, throwing the plane out of control, killing Selfridge and seriously injuring Wright (Sept. 17).

1910—First licensed woman pilot. Baroness Raymonde de la Roche of France, who learned to fly in 1909, received ticket No. 36 on March 8.

1910—First flight from shipboard. Eugene Ely took a Curtiss plane off from the deck of cruiser *Birmingham* at Hampton Roads, Va., and flew to Norfolk (Nov. 14). The following January he reversed the process, flying from Camp Selfridge to the deck of the battleship *Pennsylvania* in San Francisco Bay (Jan. 18).

1911—First U. S. woman pilot. Harriet Quimby, a magazine writer, who got ticket No. 37.

1913—First multi-engined aircraft. Built and flown by Igor Ivan Sikorsky while still in his native Russia.

1914—First aerial combat. In August, Allied and German pilots and observers started shooting at each other with pistols and rifles—with negligible results.

1915—First air raids on England. German Zeppelins started dropping bombs on four English communities (Jan. 19).

1918—First U. S. air squadron. The U. S. Army Air Corps made its first independent raids over enemy lines, in DH-4 planes (British-designed) powered with 400-hp. American-designed Liberty engines (Apr. 8).

1918—First regular airmail service. Operated for the Post Office Department by the Army, the first regular service was inaugurated with one round trip a day (except Sunday) between Washington, D. C., and New York City (May 15).

1919—First transatlantic flight. The NC-4, one of four Curtiss flying boats commanded by Lt. Comdr. Albert C. Read, reached Lisbon, Port. (May 27) after hops from Trepassy Bay, Nfd. to Horta, Azores (May 16–17), to Ponta Delgada (May 20). The Liberty-powered craft was piloted by Walter Hinton.

1919—First nonstop transatlantic flight. Capt. John Alcock and Lt. Arthur Whitten Brown, British World War I flyers, made the 1,900 mi. from St. John's, Nfd. to Clifden, Ire., in 16 hr. 12 min. in a Vickers-Vimy bomber with two 350-hp. Rolls-Royce engines (June 15–16).

1919—First lighter-than-air transatlantic flight. The British dirigible R-34, commanded by Maj. George H. Scott, left Firth of Forth, Scot. (July 2) and touched down at Mineola, L. I., 108 hr. later. The eastbound trip was made in 75 hr. (completed July 13).

1919—First scheduled passenger service (using airplanes). Aircraft Travel and Transport inaugurated London-Paris service (Aug. 25). Later the company started the first trans-channel mail service on the same route (Nov. 10).

1921—First naval vessel sunk by aircraft. Two battleships being scrapped by treaty were sunk by bombs dropped from Army planes in demonstration put on by Brig. Gen. William S. Mitchell (July 21).

1921—First helium balloon. The C-7, nonrigid Navy dirigible was first to use noninflammable helium as lifting gas, making a flight from Hampton Roads, Va., to Washington, D. C. (Dec. 1).

1922—First member of Caterpillar Club. Lt. (later Maj. Gen.) Harold Harris bailed out of a crippled plane he was testing at McCook Field, Dayton, Ohio (Oct. 20), and became the first man to join the Caterpillar Club—those whose lives have been saved by parachute.

1923—First nonstop transcontinental flight. Lts. John A. Macready and Oakley Kelly flew a single-engine Fokker T-2 nonstop from New York to San Diego, a distance of just over 2,500 mi. in 26 hr. 50 min. (May 2–3).

1923—First autogyro flights. Juan de la Cierva, brilliant Spanish mathematician, made the first successful flight in a rotary wing aircraft in Madrid (June 9).

1924—First round-the-world flight. Four Douglas Cruiser biplanes of the U. S. Army Air Corps took off from Seattle under command of Maj. Frederick Martin (Apr. 6). 175 days later two of the planes (Lt. Lowell Smith's and Lt. Erik Nelson's) landed in Seattle after a circuitous route—one source saying 26,345 mi., another saying 27,553 mi.

1926—First polar flight. Then-Lt. Cmdr. Richard E. Byrd, acting as navigator, and Floyd Bennett as pilot, flew a trimotor Fokker from Kings Bay, Spitsbergen, over the North Pole and back in 15½-hr. flight (May 8–9).

1927—First solo transatlantic flight. Charles Augustus Lindbergh lifted his Wright-powered Ryan monoplane, *Spirit of St. Louis*, from Roosevelt Field, L. I., to stay aloft 33 hr. 39 min. and cover 3,600 mi. to Le Bourget Field outside Paris (May 20–21).

1927—First transatlantic passenger. Charles A. Levine was piloted by Clarence D. Chamberlin from Roosevelt Field, L. I., to Eisleben, Ger., in a Wright-powered Bellanca (June 4–5).

1928—First east-west transatlantic crossing. Baron Guenther von Huenefeld, piloted by German Capt. Hermann Koehl and Irish Capt. James Fitzmaurice, left Dublin for New York City (Apr. 12) in a single-engine all-metal Junkers monoplane. Some 37 hr. later they cracked up on Greenly Island, Labrador. Rescued.

1928—First U. S.-Australia flight. Sir Charles Kingsford-Smith and Capt. Charles T. P. Ulm, Australians, and two American navigators, Harry W. Lyon and James Warner, crossed the Pacific from Oakland to Brisbane. They went via Hawaii and the Fiji Islands in a trimotor Fokker (May 31–June 8).

1928—First trans-Arctic flight. Sir Hubert Wilkins, Australian explorer, piloted by Carl Ben Eielson, flew from Point Barrow, Alaska, to Spitsbergen (mid-April).

1929—First of the endurance records. With Air Corps Maj. Carl Spaatz in command and Capt. Ira Eaker as chief pilot, an Army Fokker, aided by refueling in the air, remained aloft 150 hr. 40 min. at Los Angeles (Jan. 1–7).

1929—First blind flight. James H. Doolittle proved the feasibility of instrument flying when he took off and landed entirely on instruments (Sept. 24).

1929—First rocket engine flight. Fritz von Opel, German auto maker, stayed aloft in his small rocket-powered craft for 75 sec., covering nearly 2 mi. (Sept. 30).

1929—First South Pole flight. Comdr. Richard E. Byrd, with Bernt Balchen as pilot, Harold I. June, radio operator, and Capt. A. C. McKinley, photographer, flew a trimotor Fokker from the Bay of Whales, Little America, over the South Pole and back (Nov. 28–29).

1930—First Paris–New York nonstop flight. Dieudonné Coste and Maurice Bellonte, French pilots, flew a Hispano-powered Breguet biplane from Le Bourget Field to Valley Stream, L. I., in 37 hr. 18 min. (Sept. 2–3).

1931—First flight into the stratosphere. Prof. Auguste Piccard, Swiss physicist, and Charles Knipfer, ascended in a balloon from Augsburg, Ger., and reached a height of 51,793 ft. in a 17-hr. flight that terminated on a glacier near Innsbruck, Austria (May 27).

1931—First nonstop transpacific flight. Hugh Herndon and Clyde Pangborn took off from Sabishiro Beach, Japan, dropped their landing gear and flew 4,860 mi. to near Wenatchee, Wash., in 41 hr. 13 min. (Oct. 4–5).

1932—First woman's transatlantic solo. Amelia Earhart, flying a Pratt & Whitney Wasp-powered Lockheed Vega, flew alone from Harbor Grace, Nfd., to Ireland in approximately 15 hr. (May 20–21).

1932—First westbound transatlantic solo. James A. Mollison, British pilot, took a de Havilland Puss Moth from Portmarnock, Ire., to Pennfield, N. B. (Aug. 18).

1932—First woman airline pilot. Ruth Rowland Nichols, first woman to hold three international records at the same time—speed, distance, altitude—was employed by N. Y.-New England Airways.

1933—First round-the-world solo. Wiley Post took a Lockheed Vega, *Winnie Mae*, 15,596 mi. around the world in 7 days 18 hr. 49½ min. (July 15–22).

1937—First successful helicopter. Hanna Reitsch, German woman pilot, flew Dr. Heinrich Focke's FW-61 in free, fully-controlled flight at Bremen (July 4).

1939—First turbojet flight. Just before their invasion of Poland, the Germans flew a Heinkel He-178 plane powered by a Heinkel S3B turbojet (Aug. 27).

1942—First American jet plane flight. Robert Stanley, chief pilot for Bell Aircraft Corp., flew the Bell XP-59 *Airacomet* at Muroc Army Base, Calif. (Oct. 1).

1947—First piloted supersonic flight in an airplane. Capt. Charles E. Yeager, U. S. Air Force, flew the X-1, rocket-powered research plane built by Bell Aircraft Corp., faster than the speed of sound at Muroc Air Force Base, Calif. (Oct. 14).

1949—First round-the-world nonstop flight. Capt. James Gallagher and USAF crew of 13 flew a Boeing B-50A Superfortress around the world nonstop from Ft. Worth, Tex., returning to same point; 23,452 mi. in 94 hr. 1 min., with 4 aerial refuelings enroute (Feb. 27–Mar. 2).

1950—First nonstop transatlantic jet flight. Col. David C. Schilling (USAF) flew 3,300 mi. from England to Limestone, Maine, in 10 hr. 1 min. (Sept. 22).

1950—First jet-plane battle. Four U. N. jets attacked by 8 to 12 Communist jets near Sinuiju, Korea. One enemy jet reported shot down and another damaged; no U. N. losses (Nov. 8).

A Few Current Aviation Terms

Athodyd—a form of ramjet, the term coming from Aero-Thermo-Dynamic Duct.

Axial flow compressor—one that compresses air in a flow parallel to the axis of rotation through a series (or multiple stages) of compressor blades.

Centrifugal compressor—one that compresses air in a direction tangential to the rotating member (or impeller), sometimes likened to a cream separator set on its side.

Critical speed—that at which compressibility effects begin to be encountered. Most propeller-driven aircraft don't reach critical speed in level flight (because of lack of power) but can hit it in dives. Many jet-propelled planes, however, can reach it in level flight.

Supersonic speed—that which is faster than the speed of sound.

Helicopter Records

Source: National Aeronautic Association.

DISTANCE, AIRLINE

International and U. S.: 703.6 miles
Maj. F. T. Caschman, pilot, Maj. W. E. Zins, copilot, (US), Sikorsky R-5, powered by 450-hp. Pratt & Whitney, from Dayton, O. to Logan Field, Boston, Mass. May 22, '46.

DISTANCE, CLOSED CIRCUIT

International and U. S.: 621.369 miles
Maj. D. H. Jensen & Maj. W. C. Dodds, (US), Sikorsky R-5A, powered by 450-hp. Pratt & Whitney, Dayton, O. Nov. 14, '46.

ALTITUDE

International and U. S.: 21,220 feet
Capt. H. D. Gaddis (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Bridgeport, Conn., May 21, 1949.

MAXIMUM SPEED

International and U. S.: 129.552 mph.
Harold E. Thompson (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Cleveland, Ohio, April 27, 1949.

SPEED FOR 100 K.M. (CLOSED COURSE)

International and U. S.: 122.749 mph.
Harold E. Thompson (US), Sikorsky S-52-1, powered by 245 hp. Franklin; Milford, Conn., May 6, 1949.

SPEED FOR 1,000 KILOMETERS IN A CLOSED CIRCUIT (625 MILES)

International and U. S.: 107.251 km. ph. (66.642 mph.)
Maj. D. H. Jensen & Maj. W. C. Dodds, (US), Sikorsky R-5A, powered by 450-hp. Pratt & Whitney, Dayton, O., Nov. 14, '46.

Certificated U. S. Airplane Pilots

Source: Civil Aeronautics Administration.

Year	Total	Airline transport	Commercial	Private
1937	17,681	1,064	6,411	10,206
1938	22,983	1,159	7,839	13,985
1939	33,706	1,197	11,677	20,832
1940	69,829	1,431	18,791	49,607
1941	129,947	1,587	34,578	93,782
1942	166,626	2,177	55,760	108,689
1943	173,206	2,315	63,940	106,951
1944	183,383	3,046	68,449	111,888
1945	296,895	5,815	162,873	128,207
1946	400,061	7,654	203,251	189,156
1947	433,241[1]	7,059[1]	181,912[1]	244,270[1]
1948	491,306[2]	7,762[2]	176,845[2]	306,699[2]
1949	525,174	9,025	187,769	328,380

[1] As of April 1, 1948. [2] As of May 1, 1949.

U. S. Scheduled Airlines, 1950

Source: Civil Aeronautics Administration.

Airline	Certificated route mileage	Revenue passenger miles, 1950
Domestic (Trunk)		
American	20,590	1,807,884,000
Braniff	4,831	215,406,000
Capital	7,372	410,582,000
Chicago & Southern	6,119	117,600,000
Colonial	1,380	49,341,000
Continental	4,043	72,294,000
Delta	7,580	280,094,000
Eastern	18,304	1,226,819,000
Inland	1,913	35,883,000
Mid-Continent	6,121	104,361,000
National	2,715	242,775,000
Northeast	2,833	70,468,000
Northwest	11,130	511,194,000
Trans World (TWA)	16,121	1,106,196,000
United	15,806	1,411,737,000
Western	3,103	173,580,000
Total	129,961	7,836,214,000
Domestic (Feeder)		
All American	3,368	21,213,000
Bonanza	664	4,595,000
Central	1,345	1,326,000
Empire	754	8,242,000
Frontier	5,278	17,479,000
Helicopter (Chicago)	307	*
Helicopter (Los Angeles)	387	*
Lake Central	655	2,041,000
Mid-West	1,280	1,002,000
Ozark	2,488	594,000
Piedmont	1,991	26,089,000
Pioneer	1,995	34,416,000
Robinson	568	8,841,000
Southern	2,117	6,568,000
Southwest	1,272	22,236,000
Trans-Texas	2,556	14,756,000
West Coast	885	9,454,000
Wiggins, E. W.	793	288,000
Wisconsin-Central	1,712	7,764,000
Total	30,415	186,904,000
International & Overseas		
Braniff	7,599	43,339,000
Caribbean-Atlantic	393	5,852,000
Chicago & Southern	3,270	27,089,000
Colonial	2,030	18,732,000
Eastern	1,957	17,355,000
National	445	21,773,000
Northwest	17,720	102,251,000
Pan American	149,985	1,234,333,000
Panagra	10,640	103,816,000
Trans World (TWA)	28,020	338,317,000
UMCA	378	871,000
United	2,898	70,029,000
Western	1,640	*
Total	226,975	1,983,806,000

* Had not yet begun operations.

Important American Aircraft Types (U. S. Air Force)

Manufacturer[1]	Model	Seats	No. of engines and make	Engine hp. or thrust	Top speed, m.p.h.	Cruising speed, m.p.h.	Gross weight, lb.	Span ft.	Span in.	Length ft.	Length in.
EXPERIMENTAL											
Bell A. Corp.	X-1[2]	1	1 Reaction	6,000 lb.	760+	...	13,069	28	0	31	0
	X-2	..	.....	.....	...	...	.....	..	..	..	..
	X-5	1	1 AL J-35	10,000 lb.	...	...	.....	32	9	33	4
Boeing Ap. Co.	B-52	..	8 jets	.....	...	...	.....	..	..	..	..
Consolidated Vultee A. Corp.	XF-92	1	1 AL J-33	5,200 lb.	(3)	...	30,000	31	0	41	0
	XC-99	400	6 P & W R-4360	3,250 hp.	300+	...	310,000	230	0	182	6
	YB-60	..	8 jets	.....	...	...	.....	..	..	..	..
Douglas A. Co.	X-3	..	.....	.....	...	...	.....	..	..	..	..
Fairchild E. & Ap. Corp.	XC-120	Cargo	2 P & W R-4360	3,500 hp.	250	...	64,000	109	0	85	0
Hughes A. Co.	XH-17[4]	Cargo	2 GE J-35	4,000 lb.	...	...	.....	..	..	..	..
Lockheed A. Corp.	XF-90	1	2 WE J-34	4,000 lb.	(3)	...	30,000	40	0	56	0
Glenn L. Martin Co.	XB-51	2	3 GE J-47	5,200 lb.	(3)	...	.....	55	0	80	0
McDonnell A. Corp.	XF-88	1	2 WE J-34	4,000 lb.	(3)	...	30,000	40	0	55	0
North American Av., Inc.	YF-93	1	1 P & W J-48	6,250 lb.	(3)	...	.....	39	0	44	0
Northrop A. Co.	X-4	1	2 gas turbines	.....	(3)	...	7,000	25	0	20	0
Republic Av. Corp.	XF-91	1	1 GE J-47	5,200 lb.	(3)	...	30,000	30	0	45	0
OPERATIONAL											
Beech A. Corp.	C-45	5	2 P & W R-985	450 hp.	225	160	8,600	47	8	34	3
Boeing Ap. Co.	C-97	130	4 P & W R-4360	3,500 hp.	375	...	164,000	141	4	110	4
	B-29	11	4 W R-3350	2,200 hp.	350+	...	140,000	141	3	99	0
	B-47	3	6 GE J-47	5,200 lb.	600	...	185,000	116	0	107	6
	B-50	11	4 P & W R-4360	3,500 hp.	400+	...	170,000	141	3	99	0
Chase A. Co., Inc.	C-123	62	2 P&W R-2800	2,100 hp.	245+	203	25 000	110	0	77	0
Consolidated Vultee A. Corp.	B-36	15	6 P & W R-4360, 4 GE J-47	3,500 hp., 5,200 lb.	435+	...	358,000	230	0	162	6
	T-29	14	2 P & W R-2800	2,400 hp.	300+	...	40,000+	91	9	74	8
Douglas A. Co.	C-54	49	4 P & W R-2000	1,450 hp.	300	...	82,500	117	6	93	5
	C-74	125	4 P & W R-4360	3,000 hp.	300	...	145,000	173	3	124	2
	C-124	222	4 P & W R-4360	3,500 hp.	300	...	200,000	173	4	127	3
	B-26	3	2 P & W R-2800	2,085 hp.	350+	...	39,500	70	0	50	10
Fairchild E. & Ap. Corp.	C-82	42	2 P & W R-2800	2,100 hp.	250	185	54,000	106	5	77	1
	C-119	64	2 P & W R-4360	3,250 hp.	250	...	74,000	109	4	85	9
Grumman A. Engr. Corp.	SA-16	16	2 W R-1820	1,425 hp.	275+	...	28,000	80	0	60	8
Lockheed A. Corp.	F-80	1	1 AL J-33	5,200 lb.	600	...	15,000	39	0	34	6
	F-94	1	1 AL J-33	5,200 lb.	600	...	15,000	38	11	40	1
	C-121	44	4 W R-3350	2,500 hp.	350	...	135,000	123	0	95	4
	T-33	2	1 AL J-33	5,200 lb.	600	...	14,000	39	0	37	8
North American Av., Inc.	F-51	1	1 P V-1650	1,335 hp.	470	...	11,000	37	0	33	4
	F-82	2	2 AL V-1710	1,550 hp.	400+	...	26,000	51	6	39	5
	F-86	1	1 GE J-47	5,200 lb.	650	...	16,000	37	0	37	6
	T-6	2	1 P & W R-1350	600 hp.	210	...	5,300	42	0	29	0
	T-28	2	1 W R-1300	800 hp.	280+	...	6,000	40	2	32	6
	B-45	4	4 GE J-47	5,200 lb.	550	...	110,000	89	0	75	0
Northrop A. Co.	F-89	2	2 AL J-35	4,000 lb.	600	...	40,000	50	0	50	0
	C-125	Cargo	3 736C9HD	1,425 hp.	225	...	46,000	87	0	67	2
Piasecki Helicopter Corp.	H-21	15	1 W R-1820	1,425 hp.	...	...	10,113	44	0	54	0
Republic Av. Corp.	F-84	1	1 AL J-35	4,000 lb.	600	...	16,000	36	5	37	3
Sikorsky A. Corp. Div.	H-5	3	1 P & W R-985	450 hp.	105	...	5,300	48	0	57	0
	H-19	10	1 P & W R-1340	600 hp.	100+	85	7,009	49	0	39	6

[1] A—Aircraft; Ap—Airplane; Av—Aviation; E—Engine. [2] 6 models have been built. [3] High subsonic. [4] Experimental jet helicopter. [5] High speed. ENGINE SYMBOLS: AL—Allison; GE—General Electric; P—Packard; P&W—Pratt & Whitney; W—Wright; WE—Western Electric. NOTE: Power of propellerless turbojets and rocket engines is measured directly in the pounds of thrust exerted by their burnt gases forced out of the tailpipe. Turbine-propeller powerplants, however, use conventional horsepower measurement. Jet and rocket power increases with speed. At 375 mph, one lb. of thrust equals 1hp; but at 750 mph, one thrust lb. does the work of 2 hp.

Peacetime Production Record

Year	Military	Personal	Transport	Total
1946	1,643[1]	34,407[1]	467[1]	36,644
1947	2,100[2]	15,339[1]	278[1]	17,717
1948	(3)	7,039[1]	263[1]	(3)
1949	(3)	3,379[1]	166[1]	(3)
1950	(3)	3,391[1]	129[1]	(3)

[1] *Source:* Census Bureau [2] *Source:* Statistical Control Div. of Air Comptroller, Air Force. [3] Not for publication.

Important American Aircraft Types

Manufacturer*	Name or model no.	Seats	No. and make engine	Engine hp.	High speed	Cruising speed	Gross weight	Span ft.	Span in.	Length ft.	Length in.
Executive, Transport											
Beech A. Corp.	D-18S	4–10	2 P & W R-985	450	256	205	8,500	47	7	33	11½
Boeing Airplane Co.	Stratocruiser	57–92	4 P & W R-4360	3,500	351	312	142,500	141	3	110	4
Consolidated Vultee A. Corp.	Convair-Liner	36–42	2 P & W R-2800	2,100	320	285	39,000	91	9	74	8
Douglas A. C.	DC-3	30	2 P & W SC3G	1,050	257	211	25,200	95	0	64	5½
	DC-4	48–58	4 P & W R-2000	1,450	300	250	73,000	117	6	93	5
	DC-6	48–66	4 P & W R-2800	2,400	360	311	97,200	117	6	100	7
Lockheed A. Corp.	Constellation	34–64	4 Wright R-3350	2,500	354	300	107,000	123	0	95	3
G. L. Martin Co.	2-0-2	36–40	2 P & W R-2800	2,400	312	286	42,750	93	3⅜	71	4
Personal											
Aeronca A. Corp.	Sedan	4	1 Continental	145	129	114	2,050	37	6	25	3
	Champion	2	1 Continental	90	110	100	1,300	35	2	21	6
Beech A. Corp.	Bonanza	4	1 Continental	185	184	170	2,650	32	10	25	2
Cessna A. C.	140	2	1 Continental	90	125+	105+	1,500	33	4	21	6
	170	4	1 Continental	145	140+	120+	2,200	36	0	25	0
Engrg. & Research Corp.	Ercoupe	2	1 Continental	85	120	110	1,400	30	0	20	9
Piper Stinson A. Corp.	Cub PA-11	2	1 Continental	90	112	100	1,220	35	3	22	4
	Clipper	4	1 Continental	115	125	112	1,650	29	3	20	1
	Piper-Stinson	4	1 Franklin	165	133	130	2,400	34	0	25	2
Ryan Aero. Co.	Navion	4	1 Continental	205	163	155	2,750	33	4½	27	3
Texas Engrg. Mfg. Co.	Swift 125	2	1 Continental	125	150	140	1,710	29	2	20	11
	Silvaire 8F	2	1 Continental	90	128	115	1,400	35	0	20	0
	Silvaire Sedan	4	1 Continental	165	140+	130	2,280	38	0	23	6
Helicopters											
Bell A. Corp.	47-D	2	1 Franklin	178	92	85	2,200	35	2	41	2
Hiller A. Corp.	UH-12	3	1 Franklin	178	84†	...	2,247	..	..	..	..
Sikorsky A. Div.	S-51	4	1 P & W R-984	450	103	85	5,500	49	0	57	1

* A. C.—Aircraft Company; A. Corp.—Aircraft Corporation; A. Div.—Aircraft Division. † Never exceed speed.

America's Warplane Production Record

Source: Civil Aeronautics Administration.

Type	1940	1941	1942	1943	1944	1945	Total 1940–45
Total	6,019	19,433	47,836	85,898	96,318	47,714	303,218
Bombers	1,191	4,115	12,627	29,355	35,003	16,492	98,783
Fighters	1,685	4,416	10,769	23,988	38,873	21,696	101,427
Photographic and reconnaissance	121	727	1,468	734	259	531	3,840
Transport	290	532	1,984	7,012	9,834	4,629	24,281
Trainer	2,731	9,373	17,631	19,939	7,577	1,309	58,560
Other*	1	270	3,357	4,870	4,772	3,057	16,327

* Includes special purpose, rotary wing, and liaison aircraft.

Types of Airline Accidents by Percentages

Type	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
Landing	58	52	45	29	21	36	48	48	47	50	33
Take-off (including taxi)	21	12	23	25	38	26	16	9	24	20	33
Collision	11	18	16	8	17	21	18	9	30*	40*	18*
Forced landing	5	3	0	17	0	5	9	17	11	0	8
Spin or stall	0	6	0	0	3	0	0	0	2	8	3
Other	5	9	16	21	21	12	9	17	0	24	28

* Collision accidents duplicate some in other categories.

International Airplane Records

Source: National Aeronautic Association.

(over 3-kilometer—1.864 mi. course)

Speed (mph)	Date	Type plane	Pilot	Place
266.583	Nov. 4, '23		Lt. Williams (U.S.A.)	Mineola
278.480	Dec. 11, '24		Adj. Bonnet (France)	Istres
294.380	Sept. 3, '32		Maj. J. H. Doolittle (U. S. A.)	Cleveland
304.980	Sept. 4, '33	Wedell-Williams	James R. Wedell (U.S.A.)	Chicago
314.320	Dec. 25, '34		Raymond Delmotte (France)	Istres
352.388	Sept. 13, '35	Hughes	Howard Hughes (U.S.A.)	Santa Anna
379.626	Nov. 11, '37		Herman Wunster (Germany)	Augsburg
469.220	Apr. 26, '39		Fritz Wendell (Germany)	Augsburg
606.255	Nov. 7, '45	Gloster Meteor IV	Gp. Capt. H. Wilson (Gr. Britain)	Herne Bay
616.	Sept. 7, '46	Gloster Meteor Jet propelled	Gp. Capt. E. M. Donalson (Gr. Britain)	Sussex Coast
623.738	June 19, '47	Lockheed P-80R	Col. Albert Boyd (U.S.A.)	Muroc AF, Calif.
640.7	Aug. 20, '47	Douglas D-558	Comdr. T. F. Caldwell, Jr. (U.S.A.)	Muroc AF, Calif.
650.6	Aug. 25, '47	Douglas D-558	Maj. Marion Carl, USMC (U.S.A.)	Muroc AF, Calif.
670.9	Sept. 15, '48	North American F-86A	Maj. R L. Johnson (U.S.A.F.)	Muroc AF, Calif.

(Fastest U. S. transcontinental—Col. W. H. Councill, Lockheed P-80, from Long Beach, Calif. to La Guardia Field, N. Y.—2,453.8 mi., in 4 hr., 13 min., 26 sec., average speed 580.9 mph.—Jan. 26, '46.) (This record unofficially broken by Maj. R. E. Schleeh and Maj. J. W. Howell in Boeing XB-47, from Seattle, Wash., to Andrews Field, Md., 2, 289 mi., in 3 hr. 46 min., average speed 607 mph., Feb. 8, 1949.)

Distance

Distance (mi.)	Date	Crew	From	To
3,352.91	Oct. 28–29, '26	Costes & Capt. Rignot (France)	Le Bourget	Jask
3,910.90	June 4–6, '27	Clarence D. Chamberlin, A. Levine (U.S.A.)	New York	Eisleben, Germany
4,466.57	July 3–5, '28	A. Ferrarin, Del Prete (Italy)	Rome	Touros
4,911.93	Sept. 27–29, '29	Costes & Bellonte (France)	Le Bourget	Moulant
5,011.35	July 28–30, '31	Russel N. Boardman, John Polando (U.S.A.)	New York	Istanbul
5,656.95	Aug. 5–7, '33	Rossi, Codos (France)	New York	Ryack
6,305.66	July 12–14, '37	Col. M. Gromov, Youmachev, Daniline (U.S.S.R.)	Moscow	San Jacinto, Calif.
7,158.44	Nov. 5–7, '38	Sqd. Ldr. R. Kellett (Gr. Britain)	Ismalia (Suez)	Darwin
7,916	Nov. 19–20, '45	Col. C. S. Irvine, pilot, Lt. Col. G. R. Stanley, copilot (U.S.A.)	Guam	Washington, D. C.
11,235.6	Sept. 29–Oct. 1, '46	Comdr. Thomas D. Davies, Comdrs. Eugene P. Ranklin, Walter S. Reid, Lt. Comdr. Ray A. Tabeling (U.S.A.)	Perth, Australia	Columbus, Ohio

(Longest flight airplane distance and longest solo, international—William P. Odom, U. S. Beech Bonanza (185 hp.) from Honolulu, Hawaii to Teterboro, N. J., 4,957.24 mi., March 8–9, 1949.)

Distance (Closed Course)

Distance (mi.)	Date	Crew	Place
2,895.970	Aug. 3, '27	Edzard & Ristics (Germany)	Dessau
4,763.700	May 31—June 2, '28	Capt. Ferrarin & Del Prete (Italy)	Casal o del Paati
4,988.969	Dec. 15–17 '30	Costos & Codos (France)	Istres
5,088.275	May 31—June 2, '30	U. Maddalena & F. Cecconi (Italy)	Montecelio
6,444.881	June 7–10, '31	J. LeBrix & M. Doret (France)	Istres
6,587.442	Mar. 23–26, '32	Bossoutrot & Rossi (France)	Oran
7,239.588	May 13–15, '38	Comm. Fujita & Sgt. Maj. Takahashi (Japan)	Kisarasu
8,037.899	July 30—Aug. 1, '39	Angelo Tondi, Ferrucio Viquoli, pilots, Aldo Stagliano, mech. (Italy)	Romo
8,854.308	Aug. 1–3, '47	Lt. Col. O. F. Lassiter, pilot (U.S.) Capt. W. J. Valentine, copilot (U.S.)	United States

Altitude

Height (feet)	Date	Crew	Place
38,419	July 25, '37	Lt. C. C. Champion (U.S.A.)	Washington
41,795	May 26, '29	Willi Neuenhofen (Germany)	Dessau
43,166	June 4, '30	Lt. Apollo Soucek (U.S.A.)	Washington
43,976	Sept. 16, '32	Capt. Cyril F. Uwins (Gr. Britain)	Filton, Bristol
44,819	Sept. 28, '33	G. Lemoine (France)	Villacoublay
47,352	April 11, '34	Com. Renato Donati (Italy)	Romo
49,994	Sept. 28, '36	Sqd. Ldr. S. R. D. Swain (Gr. Britain)	South Farnborough
53,937	June 30, '37	Fl. Lt. M. J. Adam (Britain)	Farnborough
56,046	Oct. 22, '38	Col. Mario Pezzi (Italy)	Montecolio
59,445	Mar. 23, '48	John Cunningham (Gr. Britain)	England

Absolute Altitude—72,394.795 ft. Capts. Orvil Anderson & Albert Stevens, U. S., Nov. 11, 1935, from Rapid City, S. D., in balloon.

U. S. Airplane Record—47,910 ft. Maj. F. F. Ross, pilot, Lt. D. M. Davis, copilot, Lts. L. B. Barrier, C. B. Webster, F/O P. Morrissetti, Sgt. W. S. George, Harmon Field, Guam, May 15, 1946, Boeing B-29.

SPORTS ORGANIZATIONS AND INFORMATION BUREAUS

ALL-AMERICAN GIRLS BASEBALL LEAGUE. 462 Wrigley Bldg., Chicago 11, Ill.

AMATEUR ATHLETIC UNION OF THE U. S. 233 Broadway, New York 7, N. Y.

AMATEUR BICYCLE LEAGUE OF AMERICA. 4233 205th St., Bayside, N. Y.

AMATEUR FENCERS LEAGUE OF AMERICA. Room 3406, 122 E. 42d St., New York 17, N. Y.

AMATEUR HOCKEY ASSN. OF THE U. S. Madison Square Garden, 307 W. 49th St., New York 19, N. Y.

AMATEUR SKATING UNION OF THE U. S. 3045 No. Major Ave., Chicago 34, Ill.

AMATEUR SOFTBALL ASSN. OF AMERICA. Suite 401, 11 Hill St., Newark 2, N. J.

AMATEUR TRAPSHOOTING ASSN. Vandalia, Ohio.

AMERICAN AUTOMOBILE ASSN. Pennsylvania Ave. at 17th St., N.W., Washington 6, D. C.

AMERICAN BADMINTON ASSN. 47 Colburn Rd., Wellesley Hills 82, Mass.

AMERICAN BASKETBALL LEAGUE. 120 Wall St., New York 5.

AMERICAN BOWLING CONGRESS. 2200 N. Third St., Milwaukee 12, Wis.

AMERICAN CANOE ASSN. 500 11th St., Brooklyn 15, N. Y.

AMERICAN HOCKEY LEAGUE. Empire State Bldg., N. Y. 1.

AMERICAN HORSE SHOWS ASSN. 90 Broad St., New York 4.

AMERICAN KENNEL CLUB. 221 Fourth Ave., New York 3.

AMERICAN LAWN BOWLING ASSN. 10276 Orton Ave., Los Angeles 64 Calif.

AMERICAN LEAGUE SERVICE BUREAU (Baseball). 310 S. Michigan Ave., Chicago 4, Ill.

AMERICAN MOTORCYCLE ASSOCIATION. 106 Buttles Ave., Columbus 8, Ohio

AMERICAN POWER BOAT ASSN. 700 Canton Ave., Detroit 7, Mich.

AMERICAN RACING DRIVERS CLUB (midget auto racing). 304 West 50th St., New York 19, N. Y.

AMERICAN WATER SKI ASSN. 1661 Monroe Ave., N.W., Grand Rapids, Mich.

BASEBALL COMMISSIONER FORD C. FRICK. 30 Rockefeller Plaza, New York 20, N. Y.

BILLIARD CONGRESS OF AMERICA. 921 Edison Bldg., Toledo 4, Ohio

EASTERN COLLEGE ATHLETIC CONFERENCE. Biltmore Hotel, New York 17, N. Y.

ELIAS BASEBALL BUREAU, 11 West 42d St., New York 18

FISH AND WILDLIFE SERVICE. U. S. Dept. of the Interior, Washington 25, D. C.

INTERNATL. AMATEUR ATHLETIC FEDERATION. 71 St. George's Sq., London, S.W.1, England

INTERNATIONAL GAME FISH ASSN. American Museum of Natural History, New York 24, N. Y.

NATL. ARCHERY ASSN. OF THE U. S. North Pleasant St., Amherst, Mass.

NATL. ASSN. OF AMATEUR OARSMEN. 119 Heller Parkway, Newark 4, N. J.

NATL. ASSN. OF ANGLING AND CASTING CLUBS. 960 Paul Brown Bldg., St. Louis 1, Mo.

NATL. ASSN. OF PROFESSIONAL BASEBALL LEAGUES (Minors). 720 E. Broad St., Columbus 15, Ohio

NATL. ASSN. OF STATE RACING COMMISSIONERS. Box 156 Lexington, Ky.

NATL. BASEBALL CONGRESS. Wichita 1, Kans.

NATL. BASKETBALL ASSN. Empire State Bldg., New York 1, N. Y.

NATL. BOXING ASSN. Room 2053, New Municipal Center, Washington 1, D. C.

NATL. COLLEGIATE ATHLETIC ASSN. La Salle Hotel, Chicago 2, Ill.

NATL. DUCK PIN BOWLING CONGRESS. 1420 New York Ave., N.W., Washington 5, D. C.

NATL. FASTBALL LEAGUE. 431 S. Dearborn St., Chicago 5.

NATL. FOOTBALL LEAGUE. 1518 Walnut St., Philadelphia 2.

NATL. HOCKEY LEAGUE. Sun Life Bldg., Montreal, Quebec.

NATL. HORSESHOE PITCHERS ASSN. OF AMERICA. Crestline, Calif.

NATL. LEAGUE SERVICE BUREAU (Baseball). Carew Tower Cincinnati 2, Ohio

NATL. RIFLE ASSN. OF AMERICA. 1600 Rhode Island Ave., Washington 6, D. C.

NATL. SKEET SHOOTING ASSN. Route 5, Box 595E, Dallas 9

NATL. SKI ASSN. Box B, Barre, Mass.

NATL. STEEPLECHASE AND HUNT ASSN. 250 Park Ave., New York 17, N. Y.

NEW YORK RACING ASSNS. SERVICE BUREAU. 250 Park Ave., New York 17, N. Y.

NEW YORK STATE ATHLETIC (BOXING) COMMISSION. 80 Centre St., New York 13, N. Y.

NORTH AMERICAN YACHT RACING UNION. 37 West 44th St., New York 18, N. Y.

PACIFIC COAST HOCKEY LEAGUE. 334 Security Bldg., Seattle 1, Wash.

PROFESSIONAL GOLFERS' ASSN. OF AMERICA. 134 N. La Salle St., Chicago 2, Ill.

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SPORTS

Edited by PETER BRANDWEIN



BASEBALL

THE POPULAR TRADITION that baseball was invented by Abner Doubleday at Cooperstown, N. Y., in 1839, has been enshrined in the Hall of Fame and National Museum of Baseball erected in that town, but research has proved that a game called "Base Ball" was played in this country and England before 1839. However, the first team baseball as we know it was played at the Elysian Fields, Hoboken, N. J., on June 19, 1846, between the Knickerbockers and the New York Nino. There was a gradual growth of baseball and an improvement of equipment and playing skill in the next fifty years. Soldiers returning home from the Civil War spread over the country the game they had learned to play in camp.

Historians have it that the first pitcher to throw a curve was William A. (Candy) Cummings in 1867. The Cincinnati Red Stockings were the first all-professional team and in 1869 they played 64 games without a loss. The standard ball of the same size and weight, still the rule, was adopted in 1872. The first catcher's mask was worn in 1875. The National League was organized in 1876. The first chest protector was donned in 1885. The three-strike rule was put on the books in 1887 and the four-ball ticket to first base came in 1889. The pitching distance, formerly shorter, was lengthened to 60 feet 6 inches in 1893 and the rules have been only slightly modified since that time.

The American League, under the vigorous leadership of B. B. Johnson, blossomed forth as a major league in 1901. Judge Kenesaw Mountain Landis, by action of the two major leagues, became Commissioner of Baseball in 1921 and, upon his death (1944), Albert B. Chandler, former United States Senator from Kentucky, was elected to that office (1945). Chandler failed to obtain a new contract, and he was succeeded by Ford C. Frick (1951), the National League president.

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Baseball Statistics

Source: The Elias Baseball Bureau, New York City.

Record of World Series Games

(No series in 1904.)

Figures in parentheses indicate number of victories for each club. Pitchers named are winner and loser, respectively.

1903—BOSTON A. L. (5) vs. PITTSBURGH N. L. (3)

(Not under Brush rules)

Managers—J. J. Collins, Boston; F. C. Clarke, Pittsburgh.

Oct. 1—Pittsburgh (Phillippe)	7	Boston (Young)	3	At Boston
Oct. 2—Boston (Dinneen)	3	Pittsburgh (Leever)	0	At Boston
Oct. 3—Pittsburgh (Phillippe)	4	Boston (Hughes)	2	At Boston
Oct. 6—Pittsburgh (Phillippe)	5	Boston (Dinneen)	4	At Pittsburgh
Oct. 7—Boston (Young)	11	Pittsburgh (Kennedy)	2	At Pittsburgh
Oct. 8—Boston (Dinneen)	6	Pittsburgh (Leever)	3	At Pittsburgh
Oct. 10—Boston (Young)	7	Pittsburgh (Phillippe)	3	At Pittsburgh
Oct. 13—Boston (Dinneen)	3	Pittsburgh (Phillippe)	0	At Boston

1905—NEW YORK N. L. (4) vs. PHILADELPHIA A. L. (1)

Managers—John J. McGraw, New York; Connie Mack, Philadelphia.

Oct. 9—New York (Mathewson)	3	Philadelphia (Plank)	0	At Philadelphia
Oct. 10—Philadelphia (Bender)	3	New York (McGinnity)	0	At New York
Oct. 12—New York (Mathewson)	9	Philadelphia (Coakley)	0	At Philadelphia
Oct. 13—New York (McGinnity)	1	Philadelphia (Plank)	0	At New York
Oct. 14—New York (Mathewson)	2	Philadelphia (Bender)	0	At New York

1906—CHICAGO A. L. (4) vs. CHICAGO N. L. (2)

Managers—Fielder Jones, Chicago A. L.; Frank L. Chance, Chicago N. L.

Oct. 9—Chicago A (Altrock)	2	Chicago N (Brown)	1	At Chicago Nat. Pk.
Oct. 10—Chicago N (Reulbach)	7	Chicago A (White)	1	At Chicago Am. Pk.
Oct. 11—Chicago A (Walsh)	3	Chicago N (Pfiester)	0	At Chicago Nat. Pk.
Oct. 12—Chicago N (Brown)	1	Chicago A (Altrock)	0	At Chicago Am. Pk.
Oct. 13—Chicago A (Walsh)	8	Chicago N (Pfiester)	6	At Chicago Nat. Pk.
Oct. 14—Chicago A (White)	8	Chicago N (Brown)	3	At Chicago Am. Pk.

1907—CHICAGO N. L. (4) vs. DETROIT A. L. (0)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 8—Chicago (tie)	3	Detroit (tie)	3	At Chicago (12 Inn.)
Oct. 9—Chicago (Pfiester)	3	Detroit (Mullin)	1	At Chicago
Oct. 10—Chicago (Reulbach)	5	Detroit (Siever)	1	At Chicago
Oct. 11—Chicago (Overall)	6	Detroit (Donovan)	1	At Detroit
Oct. 12—Chicago (Brown)	2	Detroit (Mullin)	0	At Detroit

1908—CHICAGO N. L. (4) vs. DETROIT A. L. (1)

Managers—Frank L. Chance, Chicago; Hugh Jennings, Detroit.

Oct. 10—Chicago (Brown)	10	Detroit (Summers)	6	At Detroit
Oct. 11—Chicago (Overall)	6	Detroit (Donovan)	1	At Chicago
Oct. 12—Detroit (Mullin)	8	Chicago (Pfiester)	3	At Chicago
Oct. 13—Chicago (Brown)	3	Detroit (Summers)	0	At Detroit
Oct. 14—Chicago (Overall)	2	Detroit (Donovan)	0	At Detroit

1909—PITTSBURGH N. L. (4) vs. DETROIT A. L. (3)

Managers—Fred C. Clarke, Pittsburgh; Hugh Jennings, Detroit.

Oct. 8—Pittsburgh (Adams)	4	Detroit (Mullin)	1	At Pittsburgh
Oct. 9—Detroit (Donovan)	7	Pittsburgh (Camnitz)	2	At Pittsburgh
Oct. 11—Pittsburgh (Maddox)	8	Detroit (Summers)	6	At Detroit
Oct. 12—Detroit (Mullin)	5	Pittsburgh (Leifield)	0	At Detroit
Oct. 13—Pittsburgh (Adams)	8	Detroit (Summers)	4	At Pittsburgh
Oct. 14—Detroit (Mullin)	5	Pittsburgh (Willis)	4	At Detroit
Oct. 16—Pittsburgh (Adams)	8	Detroit (Donovan)	0	At Detroit

1910—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Frank L. Chance, Chicago.

Oct. 17—Philadelphia (Bender)	4	Chicago (Overall)	1	At Philadelphia
Oct. 18—Philadelphia (Coombs)	9	Chicago (Brown)	3	At Philadelphia
Oct. 20—Philadelphia (Coombs)	12	Chicago (McIntire)	5	At Chicago
Oct. 22—Chicago (Brown)	4	Philadelphia (Bender)	3	At Chicago (10 inn.)
Oct. 23—Philadelphia (Coombs)	7	Chicago (Brown)	2	At Chicago

1911—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (2)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 14—New York (Mathewson)	2	Philadelphia (Bender)	1	At New York
Oct. 16—Philadelphia (Plank)	3	New York (Marquard)	1	At Philadelphia
Oct. 17—Philadelphia (Coombs)	3	New York (Mathewson)	2	At New York (11 inn.)
Oct. 24—Philadelphia (Bender)	4	New York (Mathewson)	2	At Philadelphia
Oct. 25—New York (Crandall)	4	Philadelphia (Plank)	3	At New York (10 inn.)
Oct. 26—Philadelphia (Bender)	13	New York (Ames)	2	At Philadelphia

1912—BOSTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—J. Garland Stahl, Boston; John J. McGraw, New York.

Oct. 8—Boston (Wood)	4	New York (Tesreau)	3	At New York
Oct. 9—Boston (tie)	6	New York (tie)	6	At Boston (11 inn.)
Oct. 10—New York (Marquard)	2	Boston (O'Brien)	1	At Boston
Oct. 11—Boston (Wood)	3	New York (Tesreau)	1	At New York
Oct. 12—Boston (Bedient)	2	New York (Mathewson)	1	At Boston
Oct. 14—New York (Marquard)	5	Boston (O'Brien)	2	At New York
Oct. 15—New York (Tesreau)	11	Boston (Wood)	4	At Boston
Oct. 16—Boston (Wood)	3	New York (Mathewson)	2	At Boston (10 inn.)

1913—PHILADELPHIA A. L. (4) vs. NEW YORK N. L. (1)

Managers—Connie Mack, Philadelphia; John J. McGraw, New York.

Oct. 7—Philadelphia (Bender)	6	New York (Marquard)	4	At New York
Oct. 8—New York (Mathewson)	3	Philadelphia (Plank)	0	At Philadelphia (10 inn.)
Oct. 9—Philadelphia (Bush)	8	New York (Tesreau)	2	At New York
Oct. 10—Philadelphia (Bender)	6	New York (Demaree)	5	At Philadelphia
Oct. 11—Philadelphia (Plank)	3	New York (Mathewson)	1	At New York

1914—BOSTON N. L. (4) vs. PHILADELPHIA A. L. (0)

Managers—George T. Stallings, Boston; Connie Mack, Philadelphia.

Oct. 9—Boston (Rudolph)	7	Philadelphia (Bender)	1	At Philadelphia
Oct. 10—Boston (James)	1	Philadelphia (Plank)	0	At Philadelphia
Oct. 12—Boston (James)	5	Philadelphia (Bush)	4	At Boston (12 inn.)
Oct. 13—Boston (Rudolph)	3	Philadelphia (Shawkey)	1	At Boston

1915—BOSTON A. L. (4) vs. PHILADELPHIA N. L. (1)

Managers—William Carrigan, Boston; Patrick J. Moran, Philadelphia.

Oct. 8—Philadelphia (Alexander)	3	Boston (Shore)	1	At Philadelphia
Oct. 9—Boston (Foster)	2	Philadelphia (Mayer)	1	At Philadelphia
Oct. 11—Boston (Leonard)	2	Philadelphia (Alexander)	1	At Boston
Oct. 12—Boston (Shore)	2	Philadelphia (Chalmers)	1	At Boston
Oct. 13—Boston (Foster)	5	Philadelphia (Rixey)	4	At Philadelphia

1916—BOSTON A. L. (4) vs. BROOKLYN N. L. (1)

Managers—William Carrigan, Boston; Wilbert J. Robinson, Brooklyn.

Oct. 7—Boston (Shore)	6	Brooklyn (Marquard)	5	At Boston
Oct. 9—Boston (Ruth)	2	Brooklyn (Smith)	1	At Boston (14 inn.)
Oct. 10—Brooklyn (Coombs)	4	Boston (Mays)	3	At Brooklyn
Oct. 11—Boston (Leonard)	6	Brooklyn (Marquard)	2	At Brooklyn
Oct. 12—Boston (Shore)	4	Brooklyn (Pfeffer)	1	At Boston

1917—CHICAGO A. L. (4) NEW YORK N. L. (2)

Managers—Clarence H. Rowland, Chicago; John J. McGraw, New York.

Oct. 6—Chicago (Cicotte)	2	New York (Sallee)	1	At Chicago
Oct. 7—Chicago (Faber)	7	New York (Anderson)	2	At Chicago
Oct. 10—New York (Benton)	2	Chicago (Cicotte)	0	At New York
Oct. 11—New York (Schupp)	5	Chicago (Faber)	0	At New York
Oct. 13—Chicago (Faber)	8	New York (Sallee)	5	At Chicago
Oct. 15—Chicago (Faber)	4	New York (Benton)	2	At New York

1918—BOSTON A. L. (4) vs. CHICAGO N. L. (2)

Managers—E. G. Barrow, Boston; Fred L. Mitchell, Chicago.

Sept. 5—Boston (Ruth)	1	Chicago (Vaughn)	0	At Chicago
Sept. 6—Chicago (Tyler)	3	Boston (Bush)	1	At Chicago
Sept. 7—Boston (Mays)	2	Chicago (Vaughn)	1	At Chicago
Sept. 9—Boston (Ruth)	3	Chicago (Douglas)	2	At Boston
Sept. 10—Chicago (Vaughn)	3	Boston (Jones)	0	At Boston
Sept. 11—Boston (Mays)	2	Chicago (Tyler)	1	At Boston

1919—CINCINNATI N. L. (5) vs. CHICAGO A. L. (3)

Managers—Patrick J. Moran, Cincinnati; William Gleason, Chicago.

Oct. 1—Cincinnati (Ruether)	9	Chicago (Cicotte)	1	At Cincinnati
Oct. 2—Cincinnati (Sallee)	4	Chicago (Williams)	2	At Cincinnati
Oct. 3—Chicago (Kerr)	3	Cincinnati (Fisher)	0	At Chicago
Oct. 4—Cincinnati (Ring)	2	Chicago (Cicotte)	0	At Chicago
Oct. 6—Cincinnati (Eller)	5	Chicago (Williams)	0	At Chicago
Oct. 7—Chicago (Kerr)	5	Cincinnati (Ring)	4	At Cincinnati
Oct. 8—Chicago (Cicotte)	4	Cincinnati (Sallee)	1	At Cincinnati
Oct. 9—Cincinnati (Eller)	10	Chicago (Williams)	5	At Chicago (10 inn.)

1920—CLEVELAND A. L. (5) vs. BROOKLYN N. L. (2)

Managers—Tris Speaker, Cleveland; Wilbert J. Robinson, Brooklyn.

Oct. 5—Cleveland (Coveleskie)	3	Brooklyn (Marquard)	1	At Brooklyn
Oct. 6—Brooklyn (Grimes)	3	Cleveland (Bagby)	0	At Brooklyn
Oct. 7—Brooklyn (Smith)	2	Cleveland (Caldwell)	1	At Brooklyn
Oct. 9—Cleveland (Coveleskie)	5	Brooklyn (Cadore)	1	At Cleveland
Oct. 10—Cleveland (Bagby)	8	Brooklyn (Grimes)	1	At Cleveland
Oct. 11—Cleveland (Mails)	1	Brooklyn (Smith)	0	At Cleveland
Oct. 12—Cleveland (Coveleskie)	3	Brooklyn (Grimes)	0	At Cleveland

1921—NEW YORK N. L. (5) vs. NEW YORK A. L. (3)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 5—New York A (Mays)	3	New York N (Nehf)	0	At Polo Grounds
Oct. 6—New York A (Hoyt)	3	New York N (Douglas)	0	At Polo Grounds
Oct. 7—New York N (Barnes)	13	New York A (Quinn)	5	At Polo Grounds
Oct. 9—New York N (Douglas)	4	New York A (Mays)	2	At Polo Grounds
Oct. 10—New York A (Hoyt)	3	New York N (Nehf)	1	At Polo Grounds
Oct. 11—New York N (Barnes)	8	New York A (Shawkey)	5	At Polo Grounds
Oct. 12—New York N (Douglas)	2	New York A (Mays)	1	At Polo Grounds
Oct. 13—New York N (Nehf)	1	New York A (Hoyt)	0	At Polo Grounds

1922—NEW YORK N. L. (4) vs. NEW YORK A. L. (0)

Managers—John J. McGraw, New York N. L.; Miller J. Huggins, New York A. L.

Oct. 4—New York N (Ryan)	3	New York A (Bush)	2	At Polo Grounds
Oct. 5—New York N (tie)	3	New York A (tie)	3	At Polo Grounds (10 inn.)
Oct. 6—New York N (Scott)	3	New York A (Hoyt)	0	At Polo Grounds
Oct. 7—New York N (McQuillan)	4	New York A (Mays)	3	At Polo Grounds
Oct. 8—New York N (Nehf)	5	New York A (Bush)	3	At Polo Grounds

1923—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Miller J. Huggins, New York A. L.; John J. McGraw, New York N. L.

Oct. 10—New York N (Ryan)	5	New York A (Bush)	4	At Yankee Stadium
Oct. 11—New York A (Pennock)	4	New York N (McQuillan)	2	At Polo Grounds
Oct. 12—New York N (Nehf)	1	New York A (Jones)	0	At Yankee Stadium
Oct. 13—New York A (Shawkey)	8	New York N (Scott)	4	At Polo Grounds
Oct. 14—New York A (Bush)	8	New York N (Bentley)	1	At Yankee Stadium
Oct. 15—New York A (Pennock)	6	New York N (Nehf)	4	At Polo Grounds

1924—WASHINGTON A. L. (4) vs. NEW YORK N. L. (3)

Managers—Stanley R. Harris, Washington; John J. McGraw, New York.

Oct. 4—New York (Nehf)	4	Washington (Johnson)	3	At Washington (12 inn.)
Oct. 5—Washington (Zachary)	4	New York (Bentley)	3	At Washington
Oct. 6—New York (McQuillan)	6	Washington (Marberry)	4	At New York
Oct. 7—Washington (Mogridge)	7	New York (Barnes)	4	At New York
Oct. 8—New York (Bentley)	6	Washington (Johnson)	2	At New York
Oct. 9—Washington (Zachary)	2	New York (Nehf)	1	At Washington
Oct. 10—Washington (Johnson)	4	New York (Bentley)	3	At Washington (12 inn.)

1925—PITTSBURGH N. L. (4) vs. WASHINGTON A. L. (3)

Managers—William B. McKechnie, Pittsburgh; Stanley R. Harris, Washington.

Oct. 7—Washington (Johnson)	4	Pittsburgh (Meadows)	1	At Pittsburgh
Oct. 8—Pittsburgh (Aldridge)	3	Washington (Coveleskie)	2	At Pittsburgh
Oct. 10—Washington (Ferguson)	4	Pittsburgh (Kremer)	3	At Washington
Oct. 11—Washington (Johnson)	4	Pittsburgh (Yde)	0	At Washington
Oct. 12—Pittsburgh (Aldridge)	6	Washington (Coveleskie)	3	At Washington
Oct. 13—Pittsburgh (Kremer)	3	Washington (Ferguson)	2	At Pittsburgh
Oct. 15—Pittsburgh (Kremer)	9	Washington (Johnson)	7	At Pittsburgh

1926—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (3)

Managers—Rogers Hornsby, St. Louis; Miller J. Huggins, New York.

Oct. 2—New York (Pennock)	2	St. Louis (Sherdel)	1	At New York
Oct. 3—St. Louis (Alexander)	6	New York (Shocker)	2	At New York
Oct. 5—St. Louis (Haines)	4	New York (Ruether)	0	At St. Louis
Oct. 6—New York (Hoyt)	10	St. Louis (Reinhart)	5	At St. Louis
Oct. 7—New York (Pennock)	3	St. Louis (Sherdel)	2	At St. Louis (10 inn.)
Oct. 9—St. Louis (Alexander)	10	New York (Shawkey)	2	At New York
Oct. 10—St. Louis (Haines)	3	New York (Hoyt)	2	At New York

1927—NEW YORK A. L. (4) vs. PITTSBURGH N. L. (0)

Managers—Miller J. Huggins, New York; Owen J. Bush, Pittsburgh.

Oct. 5—New York (Hoyt)	5	Pittsburgh (Kremer)	4	At Pittsburgh
Oct. 6—New York (Pipgras)	6	Pittsburgh (Aldridge)	2	At Pittsburgh
Oct. 7—New York (Pennock)	8	Pittsburgh (Meadows)	1	At New York
Oct. 8—New York (Moore)	4	Pittsburgh (Miljus)	3	At New York

1928—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (0)

Managers—Miller J. Huggins, New York; William B. McKechnie, St. Louis.

Oct. 4—New York (Hoyt)	4	St. Louis (Sherdel)	1	At New York
Oct. 5—New York (Pipgras)	9	St. Louis (Alexander)	3	At New York
Oct. 7—New York (Zachary)	7	St. Louis (Haines)	3	At St. Louis
Oct. 9—New York (Hoyt)	7	St. Louis (Sherdel)	3	At St. Louis

1929—PHILADELPHIA A. L. (4) vs. CHICAGO N. L. (1)

Managers—Connie Mack, Philadelphia; Joseph V. McCarthy, Chicago.

Oct. 8—Philadelphia (Ehmke)	3	Chicago (Root)	1	At Chicago
Oct. 9—Philadelphia (Earnshaw)	9	Chicago (Malone)	3	At Chicago
Oct. 11—Chicago (Bush)	3	Philadelphia (Earnshaw)	1	At Philadelphia
Oct. 12—Philadelphia (Rommel)	10	Chicago (Blake)	8	At Philadelphia
Oct. 14—Philadelphia (Walberg)	3	Chicago (Malone)	2	At Philadelphia

1930—PHILADELPHIA A. L. (4) vs. ST. LOUIS N. L. (2)

Managers—Connie Mack, Philadelphia; Charles E. Street, St. Louis.

Oct. 1—Philadelphia (Grove)	5	St. Louis (Grimes)	2	At Philadelphia
Oct. 2—Philadelphia (Earnshaw)	6	St. Louis (Rhem)	1	At Philadelphia
Oct. 4—St. Louis (Hallahan)	5	Philadelphia (Walberg)	0	At St. Louis
Oct. 5—St. Louis (Haines)	3	Philadelphia (Grove)	1	At St. Louis
Oct. 6—Philadelphia (Grove)	2	St. Louis (Grimes)	0	At St. Louis
Oct. 8—Philadelphia (Earnshaw)	8	St. Louis (Hallahan)	1	At Philadelphia

1931—ST. LOUIS N. L. (4) vs. PHILADELPHIA A. L. (3)

Managers—Charles E. Street, St. Louis; Connie Mack, Philadelphia.

Oct. 1—Philadelphia (Grove)	6	St. Louis (Derringer)	2	At St. Louis
Oct. 2—St. Louis (Hallahan)	2	Philadelphia (Earnshaw)	0	At St. Louis
Oct. 5—St. Louis (Grimes)	5	Philadelphia (Grove)	2	At Philadelphia
Oct. 6—Philadelphia (Earnshaw)	3	St. Louis (Johnson)	0	At Philadelphia
Oct. 7—St. Louis (Hallahan)	5	Philadelphia (Hoyt)	1	At Philadelphia
Oct. 9—Philadelphia (Grove)	8	St. Louis (Derringer)	1	At St. Louis
Oct. 10—St. Louis (Grimes)	4	Philadelphia (Earnshaw)	2	At St. Louis

1932—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles J. Grimm, Chicago.

Sept 28—New York (Ruffing)	12	Chicago (Bush)	6	At New York
Sept. 29—New York (Gomez)	5	Chicago (Warneke)	2	At New York
Oct. 1—New York (Pipgras)	7	Chicago (Root)	5	At Chicago
Oct. 2—New York (Moore)	13	Chicago (May)	6	At Chicago

1933—NEW YORK N. L. (4) vs. WASHINGTON A. L. (1)

Managers—William H. Terry, New York; Joseph E. Cronin, Washington.

Oct. 3	New York (Hubbell)	4	Washington (Stewart)	2	At New York
Oct. 4	New York (Schumacher)	6	Washington (Crowder)	1	At New York
Oct. 5	Washington (Whitehill)	4	New York (Fitzsimmons)	0	At Washington
Oct. 6	New York (Hubbell)	2	Washington (Weaver)	1	At Washington (11 inn.)
Oct. 7	New York (Luque)	4	Washington (Russell)	3	At Washington (10 inn.)

1934—ST. LOUIS N. L. (4) vs. DETROIT A. L. (3)

Managers—Frank F. Frisch, St. Louis; Gordon S. Cochrane, Detroit.

Oct. 3	St. Louis (J. Dean)	8	Detroit (Crowder)	3	At Detroit
Oct. 4	Detroit (Rowe)	3	St. Louis (W. Walker)	2	At Detroit (12 inn.)
Oct. 5	St. Louis (P. Dean)	4	Detroit (Bridges)	1	At St. Louis
Oct. 6	Detroit (Auker)	10	St. Louis (W. Walker)	4	At St. Louis
Oct. 7	Detroit (Bridges)	3	St. Louis (J. Dean)	1	At St. Louis
Oct. 8	St. Louis (P. Dean)	4	Detroit (Rowe)	3	At Detroit
Oct. 9	St. Louis (J. Dean)	11	Detroit (Auker)	0	At Detroit

1935—DETROIT A. L. (4) vs. CHICAGO N. L. (2)

Managers—Gordon S. Cochrane, Detroit; Charles J. Grimm, Chicago.

Oct. 2	Chicago (Warneke)	3	Detroit (Rowe)	0	At Detroit
Oct. 3	Detroit (Bridges)	8	Chicago (Root)	3	At Detroit
Oct. 4	Detroit (Rowe)	6	Chicago (French)	5	At Chicago (11 inn.)
Oct. 5	Detroit (Crowder)	2	Chicago (Carleton)	1	At Chicago
Oct. 6	Chicago (Warneke)	3	Detroit (Rowe)	1	At Chicago
Oct. 7	Detroit (Bridges)	4	Chicago (French)	3	At Detroit

1936—NEW YORK A. L. (4) vs. NEW YORK N. L. (2)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Sept. 30	Giants (Hubbell)	6	Yankees (Ruffing)	1	At Polo Grounds
Oct. 2	Yankees (Gomez)	18	Giants (Schumacher)	4	At Polo Grounds
Oct. 3	Yankees (Hadley)	2	Giants (Fitzsimmons)	1	At Yankee Stadium
Oct. 4	Yankees (Pearson)	5	Giants (Hubbell)	2	At Yankee Stadium
Oct. 5	Giants (Schumacher)	5	Yankees (Malone)	4	At Yankee Stadium (10 inn.)
Oct. 6	Yankees (Gomez)	13	Giants (Fitzsimmons)	5	At Polo Grounds

1937—NEW YORK A. L. (4) vs. NEW YORK N. L. (1)

Managers—Joseph V. McCarthy, Yankees; William H. Terry, Giants.

Oct. 6	Yankees (Gomez)	8	Giants (Hubbell)	1	At Yankee Stadium
Oct. 7	Yankees (Ruffing)	8	Giants (Melton)	1	At Yankee Stadium
Oct. 8	Yankees (Pearson)	5	Giants (Schumacher)	1	At Polo Grounds
Oct. 9	Giants (Hubbell)	7	Yankees (Hadley)	3	At Polo Grounds
Oct. 10	Yankees (Gomez)	4	Giants (Melton)	2	At Polo Grounds

1938—NEW YORK A. L. (4) vs. CHICAGO N. L. (0)

Managers—Joseph V. McCarthy, New York; Charles L. Hartnett, Chicago.

Oct. 5	New York (Ruffing)	3	Chicago (Lee)	1	At Chicago
Oct. 6	New York (Gomez)	6	Chicago (Dean)	3	At Chicago
Oct. 8	New York (Pearson)	5	Chicago (Bryant)	2	At New York
Oct. 9	New York (Ruffing)	8	Chicago (Lee)	3	At New York

1939—NEW YORK A. L. (4) vs. CINCINNATI N. L. (0)

Managers—Joseph V. McCarthy, New York; William B. McKechnie, Cincinnati.

Oct. 4	New York (Ruffing)	2	Cincinnati (Derringer)	1	At New York
Oct. 5	New York (Pearson)	4	Cincinnati (Walters)	0	At New York
Oct. 7	New York (Hadley)	7	Cincinnati (Thompson)	3	At Cincinnati
Oct. 8	New York (Murphy)	7	Cincinnati (Walters)	4	At Cincinnati (10 inn.)

1940—CINCINNATI N. L. (4) vs. DETROIT A. L. (3)

Managers—William B. McKechnie, Cincinnati; Delmar D. Baker, Detroit.

Oct. 2	Detroit (Newsom)	7	Cincinnati (Derringer)	2	At Cincinnati
Oct. 3	Cincinnati (Walters)	5	Detroit (Rowe)	3	At Cincinnati
Oct. 4	Detroit (Bridges)	7	Cincinnati (Turner)	4	At Detroit
Oct. 5	Cincinnati (Derringer)	5	Detroit (Trout)	2	At Detroit
Oct. 6	Detroit (Newsom)	8	Cincinnati (Thompson)	0	At Detroit
Oct. 7	Cincinnati (Walters)	4	Detroit (Rowe)	0	At Cincinnati
Oct. 8	Cincinnati (Derringer)	2	Detroit (Newsom)	1	At Cincinnati

1941—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Joseph V. McCarthy, New York; Leo E. Durocher, Brooklyn.

Oct. 1	New York (Ruffing)	3	Brooklyn (Davis)	2	At New York
Oct. 2	Brooklyn (Wyatt)	3	New York (Chandler)	2	At New York
Oct. 4	New York (Russo)	2	Brooklyn (Casey)	1	At Brooklyn
Oct. 5	New York (Murphy)	7	Brooklyn (Casey)	4	At Brooklyn
Oct. 6	New York (Bonham)	3	Brooklyn (Wyatt)	1	At Brooklyn

1942—ST. LOUIS N. L. (4) vs. NEW YORK A. L. (1)

Managers—William H. Southworth, St. Louis; Joseph V. McCarthy, New York.

Sept. 30—New York (Ruffing)	7	St. Louis (M. Cooper)	4	At St. Louis
Oct. 1—St. Louis (Beazley)	4	New York (Bonham)	3	At St. Louis
Oct. 3—St. Louis (White)	2	New York (Chandler)	0	At New York
Oct. 4—St. Louis (Lanier)	9	New York (Donald)	6	At New York
Oct. 5—St. Louis (Beazley)	4	New York (Ruffing)	2	At New York

1943—NEW YORK A. L. (4) vs. ST. LOUIS N. L. (1)

Managers—Joseph V. McCarthy, New York; William H. Southworth, St. Louis.

Oct. 5—New York (Chandler)	4	St. Louis (Lanier)	2	At New York
Oct. 6—St. Louis (M. Cooper)	4	New York (Bonham)	3	At New York
Oct. 7—New York (Borowy)	6	St. Louis (Brazle)	2	At New York
Oct. 10—New York (Russo)	2	St. Louis (Brecheen)	1	At St. Louis
Oct. 11—New York (Chandler)	2	St. Louis (M. Cooper)	0	At St. Louis

1944—ST. LOUIS N. L. (4) vs. ST. LOUIS A. L. (2)

Managers—William H. Southworth, Cardinals; J. Luther Sewell, Browns.

Oct. 4—Browns (Galehouse)	2	Cardinals (M. Cooper)	1	At Sportsman's Park
Oct. 5—Cardinals (Donnelly)	3	Browns (Muncrief)	2	At Sportsman's Pk. (11 inn.)
Oct. 6—Browns (Kramer)	6	Cardinals (Wilks)	2	At Sportsman's Park
Oct. 7—Cardinals (Brecheen)	5	Browns (Jakucki)	1	At Sportsman's Park
Oct. 8—Cardinals (M. Cooper)	2	Browns (Galehouse)	0	At Sportsman's Park
Oct. 9—Cardinals (Lanier)	3	Browns (Potter)	1	At Sportsman's Park

1945—DETROIT A. L. (4) vs. CHICAGO N. L. (3)

Managers—Stephen F. O'Neill, Detroit; Charles J. Grimm, Chicago.

Oct. 3—Chicago (Borowy)	9	Detroit (Newhouser)	0	At Detroit
Oct. 4—Detroit (Trucks)	4	Chicago (Wyse)	1	At Detroit
Oct. 5—Chicago (Passeau)	3	Detroit (Overmire)	0	At Detroit
Oct. 6—Detroit (Trout)	4	Chicago (Prim)	1	At Chicago
Oct. 7—Detroit (Newhouser)	8	Chicago (Borowy)	4	At Chicago
Oct. 8—Chicago (Borowy)	8	Detroit (Trout)	7	At Chicago (12 inn.)
Oct. 10—Detroit (Newhouser)	9	Chicago (Borowy)	3	At Chicago

1946—ST. LOUIS N. L. (4) vs. BOSTON A. L. (3)

Managers—Edwin H. Dyer, St. Louis; Joseph E. Cronin, Boston.

Oct. 6—Boston (Johnson)	3	St. Louis (Pollet)	2	At St. Louis (10 innings)
Oct. 7—St. Louis (Brecheen)	3	Boston (Harris)	0	At St. Louis
Oct. 9—Boston (Ferriss)	4	St. Louis (Dickson)	0	At Boston
Oct. 10—St. Louis (Munger)	12	Boston (Hughson)	3	At Boston
Oct. 11—Boston (Dobson)	6	St. Louis (Brazle)	3	At Boston
Oct. 13—St. Louis (Brecheen)	4	Boston (Harris)	1	At St. Louis
Oct. 15—St. Louis (Brecheen)	4	Boston (Klinger)	3	At St. Louis

1947—NEW YORK A. L. (4) vs. BROOKLYN N. L. (3)

Managers—Stanley R. Harris, New York; Burton E. Shotton, Brooklyn.

Sept. 30—New York (Shea)	5	Brooklyn (Branca)	3	At New York
Oct. 1—New York (Reynolds)	10	Brooklyn (Lombardi)	3	At New York
Oct. 2—Brooklyn (Casey)	9	New York (Newsom)	8	At Brooklyn
Oct. 3—Brooklyn (Casey)	3	New York (Bevens)	2	At Brooklyn
Oct. 4—New York (Shea)	2	Brooklyn (Barney)	1	At Brooklyn
Oct. 5—Brooklyn (Branca)	8	New York (Page)	6	At New York
Oct. 6—New York (Page)	5	Brooklyn (Gregg)	2	At New York

1948—CLEVELAND A. L. (4) vs. BOSTON N. L. (2)

Managers—Louis Boudreau, Cleveland; William H. Southworth, Boston.

Oct. 6—Boston (Sain)	1	Cleveland (Feller)	0	At Boston
Oct. 7—Cleveland (Lemon)	4	Boston (Spahn)	1	At Boston
Oct. 8—Cleveland (Bearden)	2	Boston (Bickford)	0	At Cleveland
Oct. 9—Cleveland (Gromek)	2	Boston (Sain)	1	At Cleveland
Oct. 10—Boston (Spahn)	11	Cleveland (Feller)	5	At Cleveland
Oct. 11—Cleveland (Lemon)	4	Boston (Voiselle)	3	At Boston

1949—NEW YORK A. L. (4) vs. BROOKLYN N. L. (1)

Managers—Charles D. Stengel, New York; Burton E. Shotton, Brooklyn.

Oct. 5—New York (Reynolds)	1	Brooklyn (Newcombe)	0	At New York
Oct. 6—Brooklyn (Roe)	1	New York (Raschi)	0	At New York
Oct. 7—New York (Page)	4	Brooklyn (Branca)	3	At Brooklyn
Oct. 8—New York (Lopat)	6	Brooklyn (Newcombe)	4	At Brooklyn
Oct. 9—New York (Raschi)	10	Brooklyn (Barney)	6	At Brooklyn

1950—NEW YORK A. L. (4) vs. PHILADELPHIA N. L. (0)

Managers—Charles D. Stengel, New York; Edwin M. Sawyer, Philadelphia.

Oct. 4—New York (Raschi)	1	Philadelphia (Konstanty)	0	At Philadelphia
Oct. 5—New York (Reynolds)	2	Philadelphia (Roberts)	1	At Philadelphia (10 inn.)
Oct. 6—New York (Ferrick)	3	Philadelphia (Meyer)	2	At New York
Oct. 7—New York (Ford)	5	Philadelphia (Miller)	2	At New York

1951 World Series Statistics

Composite Box Score

NEW YORK YANKEES

	BATS	G	AB	R	H	2B	3B	HR	RBI	BAT. AVG.
Mantle, rf	L-R	2	5	1	1	0	0	0	0	.200
Rizzuto, ss	R	6	25	5	8	0	0	1	3	.320
Bauer, lf-rf	R	6	18	0	3	0	1	0	3	.167
Berra, c	L	6	23	4	6	1	0	0	0	.261
DiMaggio, cf	R	6	23	3	6	2	0	1	5	.261
McDougald, 3b-2b	R	6	23	2	6	1	0	1	7	.261
Coleman, 2b	R	5	8	2	2	0	0	0	0	.250
Collins, 1b-rf	L	6	18	2	4	0	0	1	3	.222
cMize, 1b	L	4	7	2	2	1	0	0	1	.286
dBrown, 3b	L	5	14	1	5	1	0	0	0	.357
eWoodling, lf	L	6	18	6	3	1	1	1	1	.167
fMartin	R	1	0	1	0	0	0	0	0	.000
gHopp	L	1	0	0	0	0	0	0	0	.000
Reynolds, p	R	2	6	0	2	0	0	0	1	.333
Hogue, p	R	2	0	0	0	0	0	0	0	.000
Morgan, p	R	1	0	0	0	0	0	0	0	.000
Lopat, p	L	2	8	0	1	0	0	0	1	.125
Raschi, p	R	2	2	0	0	0	0	0	0	.000
Ostrowski, p	L	1	0	0	0	0	0	0	0	.000
Sain, p	R	1	1	0	0	0	0	0	0	.000
Kuzava, p	R	1	0	0	0	0	0	0	0	.000
Totals			199	29	49	7	2	5	25	.246

NEW YORK GIANTS

	BATS	G	AB	R	H	2B	3B	HR	RBI	BAT. AVG.
Stanky, 2b	R	6	22	3	3	0	0	0	1	.136
Dark, ss	R	6	24	5	10	3	0	1	4	.417
Thompson, rf	L	5	14	2	2	0	0	0	0	.143
Irvin, lf	R	6	24	4	11	0	1	0	2	.458
Lockman, 1b	L	6	25	1	6	2	0	1	4	.240
Thomson, 3b	R	6	21	1	5	1	0	0	2	.238
Mays, cf	R	6	22	1	4	0	0	0	1	.182
Westrum, c	R	6	17	1	4	1	0	0	0	.235
aSchenz	R	1	0	0	0	0	0	0	0	.000
Hartung, rf	R	2	4	0	0	0	0	0	0	.000
bRigney	R	4	4	0	1	0	0	0	1	.250
Noble, c	R	2	2	0	0	0	0	0	0	.000
Koslo, p	L	2	5	0	0	0	0	0	0	.000
Spencer, p	R	2	0	0	0	0	0	0	0	.000
Jansen, p	R	3	2	0	0	0	0	0	0	.000
Hearn, p	R	2	3	0	0	0	0	0	0	.000
Jones, p	R	2	0	0	0	0	0	0	0	.000
Maglie, p	R	1	1	0	0	0	0	0	0	.000
hLohrke	R	2	2	0	0	0	0	0	0	.000
Kennedy, p	R	2	0	0	0	0	0	0	0	.000
Corwin, p	R	1	0	0	0	0	0	0	0	.000
iWilliams	R	2	1	0	0	0	0	0	0	.000
Konikowski, p	R	1	0	0	0	0	0	0	0	.000
jYvars	R	1	1	0	0	0	0	0	0	.000
Totals			194	18	46	7	1	2	15	.237

aRan for Westrum in seventh of second game. bFlied out for Thompson in seventh of second game, struck out for Jones in eighth of fourth game, flied out for Kennedy in fifth of fifth game, singled for Koslo in seventh of sixth game. cPopped out for Collins in ninth of first game; flied out for Ostrowski in ninth of third game. dStruck out for Hogue in eighth of first game. eStruck out for Morgan in ninth of first game. fRan for Brown in eighth of second game. gWalked for Hogue in seventh of third game. hPopped out for Maglie in fifth of fourth game, struck out for Jansen in third of fifth game. iGrounded out for Corwin in eighth of fifth game, ran for Westrum in eighth of sixth game. jLined out for Thompson in ninth of sixth game.

COMPOSITE SCORE BY INNINGS

New York Yankees	2	3	5	3	2	5	6	2	1	— 29
New York Giants	4	1	0	0	6	3	1	0	3	— 18

PITCHING SUMMARY

	Throws	G	CG	IP	H	R	ER	BB	SO	HB	WP	W	L	Pct.	ERA
Reynolds	R	2	1	15	16	7	7	11	8	0	0	1	1	.500	4.19
Hogue	R	2	0	2 2/3	1	0	0	0	0	0	0	0	0	.000	0.00
Morgan	R	1	0	2	2	0	0	1	3	0	0	0	0	.000	0.00
Lopat	L	2	2	18	10	2	1	3	4	0	0	2	0	1.000	0.50
Raschi	R	2	0	10 1/3	12	7	1	8	4	1	0	1	1	.500	0.90
Ostrowski	L	1	0	1	1	0	0	0	1	0	0	0	0	.000	0.00
Sain	R	1	0	2	4	2	2	2	2	0	0	0	0	.000	9.00
Kuzava	L	1	0	1	0	0	0	0	0	0	0	0	0	.000	0.00
Koslo	L	2	1	15	12	5	5	7	6	0	1	1	1	.500	3.00
Spencer	R	2	0	3 1/3	6	7	7	3	6	0	0	0	2	.000	6.30
Hearn	R	2	0	8 2/3	5	1	1	8	1	1	0	1	0	1.000	1.00
Jansen	R	3	0	10	8	7	7	4	6	0	0	0	0	.000	6.30
Jones	R	2	0	4 1/3	5	3	1	1	2	0	0	0	0	.000	2.25
Maglie	R	1	0	5	8	4	4	2	3	0	0	0	1	.000	7.20
Kennedy	L	2	0	3	3	2	2	1	4	0	0	0	0	.000	6.00
Corwin	R	1	0	1 2/3	1	0	0	0	1	0	0	0	0	.000	0.00
Konikowski	R	1	0	1	1	0	0	0	0	1	0	0	0	.000	0.00

Earned runs—Yankees 27, Giants 11. (Irvin stole home in first of first game, McDougald scored on Thompson's error in second of first game, Dark scored on Berra's error in fifth of third game, Rizzuto scored on Stanky's error in seventh of fourth game, Dark scored on Woodling's error in first of fifth game, Rizzuto scored on Hartung's error in sixth of fifth game, Collins scored on Corwin's wild pitch in seventh of fifth game.)

Sacrifices—Koslo 2. Stolen bases—Irvin 2. Double plays—McDougald, Rizzuto and Collins: Rizzuto, McDougald and Collins 2; Reynolds, Rizzuto and Collins 2; Rizzuto, Coleman and Collins; Lopat, McDougald and Mize; Rizzuto and Mize 2; Rizzuto, Coleman and Mize; Dark, Stanky and Lockman 2; Stanky, Dark and Lockman; Hearn, Dark, Lockman and Dark. Left on bases—Giants 45, Yankees 41. Passed ball—Berra. Umpires—Bill Summers (A); Lee Ballanfant (N); Joe Paparella (A); Al Barlick (N); John Stevens (A); Art Gore (N).

Attendances—First game, 65,673; second, 66,018; third, 52,035; fourth, 49,010; fifth, 47,530; sixth, 61,711. Times of games—First, 2:58; second, 2:05; third, 2:42; fourth, 2:57; fifth, 2:31; sixth, 2:59.

1ST GAME—At Yankee Stadium, Oct. 4

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	4	1	0	4	2	0
Dark, ss	5	1	2	1	2	0
Thompson, rf	3	1	0	3	0	1
Irvin, lf	5	1	4	4	0	0
Lockman, 1b	4	0	1	4	1	0
Thomson, 3b	3	0	1	2	2	0
Mays, cf	5	0	0	2	0	0
Westrum, c	3	1	2	5	0	0
Koslo, p	3	0	0	2	1	0
Total	35	5	10	27	8	1

NEW YORK (A)

	AB	R	H	PO	A	E
Mantle, rf	3	0	0	4	0	0
Rizzuto, ss	4	0	2	1	2	0
Bauer, lf	4	0	0	0	0	0
DiMaggio, cf	4	0	0	3	0	0
Berra, c	4	0	1	5	1	0
McDougald, 3b	4	1	1	0	2	1
Coleman, 2b	3	0	1	3	3	0
Collins, 1b	3	0	1	11	0	0
bMize	1	0	0	0	0	0
Reynolds, p	2	0	1	0	3	0
Hogue, p	0	0	0	0	1	0
aBrown	1	0	0	0	0	0
Morgan, p	0	0	0	0	1	0
cWoodling	1	0	0	0	0	0
Total	34	1	7	27	13	1

aStruck out for Hogue in seventh. bPopped out for Collins in ninth. cStruck out for Morgan in ninth.

New York (N)	2	0	0	0	0	3	0	0	0	—5
New York (A)	0	1	0	0	0	0	0	0	0	—1

Runs batted in—Lockman, (Irvin stole home in first), (McDougald scored on Thompson's error in second), Dark 3.

Two-base hits—Lockman, McDougald. Three-base hit—Irvin. Home run—Dark. Stolen base—Irvin. Sacrifices—Koslo 2. Left on bases—Giants 13, Yankees 9. Bases on balls—Off Reynolds 7 (Thompson 2, Thomson, Westrum 2, Lockman, Stanky); Morgan 1 (Thomson); Koslo 3 (Mantle 2, Coleman). Struck out—By Reynolds 1 (Dark); Morgan 3 (Koslo 2, Mays); Koslo 3 (Rizzuto, Brown, Woodling). Hits and runs—Off Reynolds 8 and 5 in 6 innings. Hogue 0 and 0 in 1, Morgan 2 and 0 in 2. Double-play—McDougald, Coleman and Collins. Losing pitcher—Reynolds.

Umpires—Summers (A), plate; Ballanfant (N), 1b; Paparella (A), 2b; Barlick (N), 3b; Stevens (A), lf; Gore (N), rf. Time—2:58. Attendance—65,673.

2D GAME—At Yankee Stadium, Oct. 5

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	3	0	0	1	4	0
Dark ss	4	0	1	0	4	0
Thomson, 3b	4	0	0	2	3	0
Irvin, lf	4	1	3	3	0	0
Lockman, 1b	4	0	1	11	0	1
Mays, cf	4	0	0	2	0	0
Westrum, c	2	0	0	5	0	0
bSchenz	0	0	0	0	0	0
Hartung, rf	1	0	0	0	0	0
Thompson, rf	2	0	0	0	0	0
aRigney	1	0	0	0	0	0
Spencer, p	0	0	0	0	0	0
Jansen, p	2	0	0	0	0	0
Noble, c	1	0	0	0	0	0
Total	32	1	5	24	11	1

NEW YORK (A)

	AB	R	H	PO	A	E
Mantle, rf	2	1	1	0	0	0
Bauer, rf	2	0	0	1	0	0
Rizzuto, ss	4	0	1	2	2	0
McDougald, 2b-3b	3	0	1	2	3	0
DiMaggio, cf	3	0	0	4	0	0
Berra, c	3	0	0	2	0	0
Woodling, lf	3	0	0	4	0	0
Brown, 3b	3	0	1	0	4	0
cMartin	0	1	0	0	0	0
Coleman, 2b	0	0	0	1	0	0
Collins, 1b	3	1	1	9	2	0
Lopat, p	3	0	1	2	2	0
Total	29	3	6	27	13	0

aFlied out for Thompson in seventh. bRan for Westrum in seventh. cRan for Brown in eighth.

New York (N)	0	0	0	0	0	0	0	1	0	0—1
New York (A)	1	1	0	0	0	0	0	0	1	..—3

Runs batted in—McDougald, Collins, Rigney, Lopat.

Home run—Collins. Stolen base—Irvin. Left on bases—Giants 6, Yankees 2. Bases on balls—Off Lopat 2 (Stanky, Westrum). Struck out by—Lopat 1 (Thompson); Jansen 5 (Berra, Mantle, DiMaggio, Lopat, McDougald). Hits and runs—Off Jansen 4 and 2 in 6 innings, Spencer 2 and 1 in 2. Double play—Dark, Stanky and Lockman. Losing pitcher—Jansen.

Umpires—Ballanfant (N), plate; Paparella (A), 1b; Barlick (N), 2b; Summers (A), 3b; Gore (N), lf; Stevens (A), rf. Time—2:05. Attendance—66,018.

3D GAME—At Polo Grounds, Oct. 6

NEW YORK (A)

	AB	R	H	PO	A	E
Woodling, lf	4	1	1	3	0	0
Rizzuto, ss	4	1	1	2	4	1
McDougald, 2b	3	0	2	2	2	0
DiMaggio, cf	4	0	0	4	0	0
Berra, c	3	0	1	5	1	1
Brown, 3b	3	0	0	0	1	0
Collins, 1b	3	0	0	6	0	0
Bauer, rf	4	0	0	2	0	0
Raschi, p	1	0	0	0	0	0
Hogue, p	0	0	0	0	0	0
aHopp	0	0	0	0	0	0
Ostrowski, p	0	0	0	0	0	0
bMize	1	0	0	0	0	0
Total	30	2	5	24	8	2

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	2	1	1	2	2	0
Dark, ss	4	1	1	4	3	0
Thompson, rf	3	1	1	1	0	0
Irvin, lf	3	1	0	2	0	0
Lockman, 1b	4	1	1	10	1	1
Thomson, 3b	4	1	1	3	4	0
Mays, cf	4	0	2	3	0	0
Westrum, c	4	0	0	2	1	1
Hearn, p	3	0	0	0	2	0
Jones, p	0	0	0	0	1	0
Total	31	6	7	27	14	2

aWalked for Hogue in seventh. bFlied out for Ostrowski in ninth.

New York (A)	0	0	0	0	0	0	0	0	1	1—2
New York (N)	0	1	0	0	5	0	0	0	0	..—6

Runs batted in—Mays, Dark, (Dark scored on Berra's error in fifth), Lockman 3, Collins, Woodling.

Two-base hit—Thomson. Home runs—Lockman, Woodling. Left on bases—Yankees 10, Giants 5. Bases on balls—Off Raschi 3 (Irvin, Thompson, Stanky); Hearn 8 (Woodling, McDougald 2, Raschi, Hopp, Brown, Collins). Struck out—By Berra, Hopp, Brown, Collins). Struck out—By Raschi 3 (Thompson, Stanky, Hearn); Ostrowski 1 (Lockman); Hearn 1 (DiMaggio). Hits and runs—Off Raschi 5 and 6 in 4 1/3 innings, Hogue 1 and 0 in 1 2/3, Ostrowski 1 and 0 in 2, Hearn 4 and 1 in 7 2/3, Jones 1 and 1 in 1 1/3. Hit by pitcher—By Raschi (Stanky), by Hearn (Rizzuto). Double plays—Stanky, Dark and Lockman; Hearn, Dark, Lockman and Dark, Rizzuto, McDougald and Collins. Winning pitcher—Hearn. Losing pitcher—Raschi.

Umpires—Paparella (A), plate; Barlick (N), 1b; Summers (A), 2b; Ballanfant (N), 3b; Stevens (A), lf; Art Gore (N), rf. Time—2:42. Attendance—52,035.

4TH GAME—At Polo Grounds, Oct. 8

NEW YORK (A)

	AB	R	H	PO	A	E
Bauer, rf	4	0	2	0	0	0
Rizzuto, ss	5	1	1	5	5	0
Berra, c	5	1	1	8	1	0
DiMaggio, cf	5	1	2	2	0	0
Woodling, lf	4	2	1	1	0	0
McDougald, 2b-3b	4	0	1	3	2	0
Brown, 3b	4	1	2	0	0	0
Coleman, 2b	0	0	0	1	1	0
Collins, 1b	3	0	1	7	0	0
Reynolds, p	4	0	1	0	2	0
Total	38	6	12	27	11	0

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	4	0	1	3	0	1
Dark, ss	4	1	3	2	1	0
Thompson, rf	3	0	0	1	0	0
Irvin, lf	4	1	2	2	0	0
Lockman, 1b	4	0	0	4	0	0
Thomson, 3b	2	0	2	2	3	1
Mays, cf	4	0	0	5	1	0
Westrum, c	2	0	0	7	1	0
Maglie, p	1	0	0	0	0	0
aLohrke	1	0	0	0	0	0
Jones, p	0	0	0	0	0	0
bRigney	1	0	0	0	0	0
Kennedy, p	0	0	0	0	0	0
Total	30	2	8	27	6	2

aPopped out for Maglie in fifth. bStruck out for Jones in eighth.

New York (A)	0	1	0	1	2	0	2	0	0	0—6
New York (N)	1	0	0	0	0	0	0	0	1	0—2

Runs batted in—Irvin, Collins, Reynolds, DiMaggio 2 (Rizzuto scored on Stanky's error in seventh), McDougald, Thomson.

Two-base hits—Dark 3, Woodling, Brown. Home run—DiMaggio. Left on bases—Yankees 8, Giants 5. Bases on balls—Off Reynolds 4 (Thomson 2, Westrum, Thompson); Maglie 2 (Bauer, Collins); Jones 1 (Woodling). Struck out—By Reynolds 7 (Lockman, Westrum 2, Maglie, Irvin, Stanky, Rigney); Maglie 3 (Rizzuto, DiMaggio, McDougald); Jones 2 (Reynolds, Rizzuto); Kennedy 2 (DiMaggio, Woodling). Hits and runs—Off Maglie 8 and 4 in 5 innings, Jones 4 and 2 in 3, Kennedy 0 and 0 in 1. Double plays—Rizzuto, McDougald and Collins; Reynolds, Rizzuto and Collins 2; Rizzuto, Coleman and Collins. Losing pitcher—Maglie.

Umpires—Barlick (N), plate; Summers (A), 1b; Ballanfant (N), 2b; Paparella (A), 3b; Gore (N), lf; Stevens (A), rf. Time—2:57. Attendance—49,010.

5TH GAME—At Polo Grounds, Oct. 9

NEW YORK (A)

	AB	R	H	PO	A	E
Woodling, lf	3	3	1	5	0	1
Rizzuto, ss	4	3	2	0	6	0
Berra, c	4	2	1	3	0	0
DiMaggio, cf	5	1	3	3	0	0
Mize, 1b	3	1	1	6	0	0
Bauer, rf	1	0	0	0	0	0
McDougald, 2b-3b	5	1	1	2	2	0
Brown, 3b	3	0	2	1	3	0
Coleman, 2b	1	1	0	0	1	0
Collins, rf-1b	5	1	1	7	0	0
Lopat, p	5	0	0	0	2	0
Total	39	13	12	27	14	1

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	4	0	0	1	4	0
Dark, ss	4	1	2	2	3	0
Thomson, 3b	4	0	0	1	3	1
Irvin, lf	4	0	2	2	0	1
Lockman, 1b	4	0	0	9	3	0
Mays, cf	2	0	0	2	0	0
Hartung, rf	3	0	0	1	1	1
Westrum, c	3	0	1	7	0	0
Jansen, p	0	0	0	1	1	0
aLohrke	1	0	0	0	0	0
Kennedy, p	0	0	0	0	1	0
bRigney	1	0	0	0	0	0
Spencer, p	0	0	0	0	1	0
Corwin, p	0	0	0	1	0	0
cWilliams	1	0	0	0	0	0
Konikowski, p	0	0	0	0	0	0
Total	31	1	5	27	17	3

aStruck out for Jansen in third. bFlied out for Kennedy in fifth. cGrounded out for Corwin in eighth.

New York (A)	0	0	5	2	0	2	4	0	0	0—13
New York (N)	1	0	0	0	0	0	0	0	0	0— 1

Runs batted in—(Dark scored on Woodling's error in first), DiMaggio 3, McDougald 4, Rizzuto 3 (Rizzuto scored on Hartung's error in sixth), Mize (Collins scored on Corwin's wild pitch in seventh).

Two-base hits—Westrum, Mize, DiMaggio. Three-base hit—Woodling. Home runs—McDougald, Rizzuto. Left on bases—Yankees 7, Giants 4. Bases on balls—Off Jansen 4 (Berra, Woodling, Rizzuto, Mize); Kennedy 1 (Woodling); Spencer 3 (Brown, Woodling, Rizzuto); Lopat 1 (Mays). Struck out—By Jansen 1 (Woodling); Kennedy 2 (Lopat, Collins); Corwin 1 (Coleman); Lopat 3 (Lohrke, Mays, Westrum). Hits and runs—Off Jansen 3 and 5 in 3 innings, Kennedy 3 and 2 in 2, Spencer 4 and 6 in 1 1/3, Corwin 1 and 0 in 1 2/3, Konikowski 1 and 0 in 1. Wild pitch—Corwin. Double play—Lopat, McDougald and Mize. Losing pitcher—Jansen.

Umpires—Summers (A), plate; Ballanfant (N), 1b; Paparella (A), 2b; Barlick (N), 3b; Stevens (A), lf; Gore (N), rf. Time—2:31. Attendance—47,530.

6TH GAME—At Yankee Stadium, Oct. 10

NEW YORK (N)

	AB	R	H	PO	A	E
Stanky, 2b	5	1	1	3	4	0
Dark, ss	3	1	1	1	2	0
Lockman, 1b	5	0	3	10	0	0
Irvin, lf	4	0	0	3	0	0
Thomson, 3b	4	0	1	2	0	0
Thompson, rf	3	0	1	0	0	1
cYvars	1	0	0	0	0	0
Westrum, c	3	0	1	3	0	0
bWilliams	0	0	0	0	0	0
Jansen, p	0	0	0	0	1	0
Mays, cf	3	1	2	2	0	0
Koslo, p	2	0	0	0	1	0
aRigney	1	0	1	0	0	0
Hearn, p	0	0	0	0	0	0
Noble, c	1	0	0	0	1	0
Total	35	3	11	24	9	1

NEW YORK (A)

	AB	R	H	PO	A	E
Rizzuto, ss	4	0	1	4	4	0
Coleman, 2b	4	1	1	2	1	0
Berra, c	4	1	2	4	0	0
DiMaggio, cf	2	1	1	1	0	0
McDougald, 3b	4	0	0	1	3	0
Mize, 1b	2	1	1	6	0	0
Collins, 1b	1	0	0	0	0	0
Bauer, rf	3	0	1	4	0	0
Woodling, lf	3	0	0	5	0	0
Raschi, p	1	0	0	0	0	0
Sain, p	1	0	0	0	0	0
Kuzava, p	0	0	0	0	0	0
Total	29	4	7	27	8	0

aSingled for Koslo in seventh. bRan for Westrum in eighth. cFlied out for Thompson in ninth.

New York (N)	0	0	0	0	1	0	0	0	2	—3
New York (A)	1	0	0	0	0	3	0	0	.	—4

Runs batted in—McDougald, Stanky, Bauer 3, Irvin, Thomson.

Two-base hits—Lockman, Berra, DiMaggio. Three-base hit—Bauer. Double-plays—Rizzuto and Mize 2; Rizzuto, Coleman and Mize; Dark, Stanky and Lockman. Left on bases—Giants 12, Yankees 5. Bases on balls—Off Koslo 4 (DiMaggio 2, Raschi, Mize); Raschi 5 (Westrum, Dark 2, Irvin, Thomson); Sain 2 (Thompson, Mays). Struck out—By Raschi 1 (Dark); Sain 2 (Dark, Noble); Koslo 3 (Raschi, Bauer, Coleman). Hits and runs—Off Koslo 5 and 4 in 6 innings, Hearn 1 and 0 in 1, Jansen 1 and 0 in 1, Raschi 7 and 1 in 6 (none out in seventh), Sain 4 and 2 in 2 (none out in ninth), Kuzava 0 and 0 in 1. Wild pitch—Koslo. Passed ball—Berra. Winning pitcher—Raschi. Losing pitcher—Koslo.

Umpires—Ballanfant (N), plate; Paparella (A) 1b; Barlick (N), 2b; Summers (A), 3b; Gore (N), lf; Stevens (A), rf. Time—2:59. Attendance—61,711.

Gil McDougald's home run with the bases filled in the third inning of the fifth game of the 1951 World Series was the third "grand slam" blow in the history of the classic.

OTHER 1951 SERIES STATISTICS

Final Standing of the Clubs

	Won	Lost	Pct.
New York Yankees	4	2	.667
New York Giants	2	4	.333

Six-Game Totals

Paid attendance—341,977.
* Receipts—$1,633,457.47.
† Players' share—$560,562.37.
Commissioner's share—$245,018.63.
Clubs' and leagues' share—$827,876.47.

* Does not include radio and television fee. † Record. Players share in receipts of first four games.

HOME ATTENDANCE FIGURES

(Unofficial)

American League

	1951	1950	Other club records
New York	1,951,464	2,081,380	2,373,901 (1948)
Cleveland	1,712,337	1,727,464	2,620,627 (1948)
Chicago	1,339,980*	781,330	
Boston	1,288,892	1,344,080	1,596,650 (1949)
Detroit	1,159,184	1,951,474*	
Washington	636,804	699,697	1,027,216 (1946)
Philadelphia	463,963	309,805	945,076 (1948)
St. Louis	299,705	247,131	712,918 (1922)
Totals	8,852,329	9,142,361	

* Club record. Cleveland's 1948 total is the record for the major leagues.

National League

	1951	1950	Other club records
Brooklyn	1,300,070	1,185,896	1,807,526 (1947)
New York	1,141,686	1,008,878	1,600,793 (1947)
St. Louis	1,058,747	1,093,411	1,430,676 (1949)
Pittsburgh	983,901	1,166,267	1,517,021 (1948)
Philadelphia	923,842	1,217,035*	
Chicago	902,052	1,165,944	1,485,166 (1929)
Cincinnati	592,879	538,794	981,443 (1939)
Boston	492,461	944,391	1,455,439 (1948)
Totals	7,395,638	8,320,616	
Grand totals	16,247,967	17,462,977	

World Series Club Standing

	Series	Won	Lost	Pct.
Cleveland (A)	2	2	0	1.000
Boston (A)	6	5	1	.833
New York (A)	18	14	4	.778
St. Louis (N)	9	6	3	.667
Cincinnati (N)	3	2	1	.667
Chicago (A)	3	2	1	.667
Philadelphia (A)	8	5	3	.625
Boston (N)	2	1	1	.500
Pittsburgh (N)	4	2	2	.500
Washington (A)	3	1	2	.333
New York (N)	13	4	9	.308
Detroit (A)	7	2	5	.286
Chicago (N)	10	2	8	.200
St. Louis (A)	1	0	1	.000
Philadelphia (N)	2	0	2	.000
Brooklyn (N)	5	0	5	.000

RECAPITULATION

	Won
American League	31
National League	17

Indians-Braves Set All-Time Marks

All-time attendance and receipts records for a baseball game were set in the fifth contest of the 1948 world series between the Cleveland Indians and Boston Braves at Municipal Stadium, Cleveland, on Oct. 10. The crowd of 86,288 paid $378,778.73.

Stamford Little League Champion

Stamford, Conn., beat North Austin, Texas, 3–0, in the final of the 1951 Little League baseball world series before 10,000 fans in Williamsport, Pa.

Longest Game in the Majors

The 26-inning 1–1 tie game between Brooklyn and Boston of the National League, played at Braves Field, Boston, on May 1, 1920, still stands as the longest contest in major league history. Both pitchers, Joe Oeschger of the Braves and Leon Cadore of the Robins, as they were then called because they were managed by Wilbert Robinson, went the distance. George (Miracle Man) Stallings guided Boston. The game was called because of darkness.

OFFICIAL BOX SCORE

BROOKLYN (N)

	ab	r	h	po	a	e
Olson, 2b	10	0	1	5	8	1
Neis, rf	10	0	1	9	0	0
Johnston, 3b	10	0	2	3	1	0
Wheat, lf	9	0	2	3	0	0
Myers, cf	2	0	1	2	0	0
Hood, cf	6	0	1	9	1	0
Konetchy, 1b	9	0	1	30	0	0
Ward, ss	10	0	0	5	3	1
Krueger, c	2	1	0	4	3	0
Elliott, c	7	0	0	7	3	0
Cadore, p	10	0	0	1	12	0
Total	85	1	9	78	31	2

BOSTON (N)

	ab	r	h	po	a	e
Powell, cf	7	0	1	8	0	0
Pick, 2b	11	0	0	6	11	2
Mann, lf	10	0	2	6	0	0
Cruise, rf	9	1	1	4	0	0
Holke, 1b	10	0	2	42	1	0
Boeckel, 3b	11	0	3	1	7	0
Maranville, ss	10	0	3	1	9	0
O'Neil, c	2	0	0	4	1	0
a Christenbury	1	0	1	0	0	0
Gowdy, c	6	0	1	6	1	0
Oeschger, p	9	0	1	0	11	0
Total	86	1	15	78	41	2

a Batted for O'Neil in the ninth.

Brooklyn	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0—1
Boston	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0—1

(Called, darkness)

Runs batted in—Olson, Boeckel.

Two base hits—Maranville, Oeschger. Three-base hits—Cruise. Stolen bases—Myers, Hood. Sacrifices—Hood, Powell, Cruise, Holke, O'Neil, Oeschger. Double plays—Olson and Konetchy; Oeschger, Holke and Gowdy. Left on bases—Boston 16, Brooklyn 11. Earned runs—Boston 1, Brooklyn 1. Struck out—by Cadore 7 (Pick, Mann, Cruise, Gowdy, Oeschger 3), Oeschger 7 (Olson, Neis 2, Johnston, Hood, Elliott, Cadore). Bases on balls—Off Cadore 5 (Powell 3, Mann, Cruise), Oeschger 4 (Wheat, Hood, Konetchy, Krueger). Wild pitch—Oeschger. Umpires—McCormick and Hart. Time—3:50. Attendance—2,000.

MAJOR LEAGUE STATISTICS

Source: American League and National League Service Bureaus.

lf—Left-field foul line; cf—center field; rf—right-field foul line. (2)—Indicates double-header scheduled.

American League

Club, nickname and grounds	Distance, feet lf	cf	rf	Seating capacity	Record attendance	Visiting club	Date
Boston Red Sox—Fenway Park	315	420	302	34,817	41,766	New York (2)	Aug. 12, 1934
Chicago White Sox—Comiskey Park	352	415	352	47,400	53,940	New York (night)	June 8, 1951
Cleveland Indians—Municipal Stadium	321	410	321	73,500	82,781	Philadelphia (2)	June 20, 1948
Detroit Tigers—Briggs Stadium	340	440	325	52,954	58,369	New York (2)	July 20, 1947
New York Yankees—Yankee Stadium	301	461	296	67,000	81,841	Boston (2)	May 30, 1938
Philadelphia Athletics—Shibe Park	334	420	331	33,223	38,800	Washington (2)	July 13, 1931
St. Louis Browns—Sportsman's Park	351	422	310	34,000	34,625	New York	Oct. 1, 1944
Washington Senators—Griffith Stadium	402	426	328	29,731	35,563	New York (2)	July 4, 1936

National League

Boston Braves—Braves Field	337	390	319	41,000	47,123	Philadelphia (2)	May 22, 1932
Brooklyn Dodgers—Ebbets Field	343	405	297	32,111	41,209	New York (2)	May 30, 1934
Chicago Cubs—Wrigley Field	355	400	353	38,690	46,965	Pittsburgh (2)	May 31, 1947
Cincinnati Reds—Crosley Field	328	387	342	30,000	36,961	Pittsburgh (2)	Apr. 27, 1947
New York Giants—Polo Grounds	279	484	257.67	55,000	60,747	Brooklyn (2)	May 31, 1938
Philadelphia Phillies—Shibe Park	334	420	331	33,223	40,952	Brooklyn (2)	May 11, 1947
Pittsburgh Pirates—Forbes Field	335	457	300	33,730	43,536	New York (2)	Aug. 31, 1938
St. Louis Cardinals—Sportsman's Park	351	422	310	34,000	45,770	Chicago (2)	July 12, 1931

Chart of 1951 Major League Pennant Races

Monday Morning Standings

American League	APRIL 23	30	MAY 7	14	21	28	JUNE 4	11	18	25	JULY 2	9	16	23	30	AUGUST 6	13	20	27	SEPTEMBER 3	10	17	24	OCTOBER 1
New York	4	3	1	1	1	1	2	2	2	2	1	3	3	1	1	1	2	2	2	1	1	1	1	1
Cleveland	1	1	2	3	6	5	4	4	4	4	4	4	2	2	2	2	1	1	1	2	2	2	2	2
Boston	5	4	5	6	5	3	3	3	3	3	3	2	1	2	2	3	3	3	3	3	3	3	3	3
Chicago	2	5	4	3	2	2	1	1	1	1	2	1	2	4	4	4	4	4	4	4	4	4	4	4
Detroit	6	6	6	3	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Philadelphia	7	8	8	7	7	8	7	8	7	7	6	7	7	7	7	7	7	7	7	7	6	6	6	6
Washington	2	1	3	2	4	5	6	6	6	6	7	6	6	6	6	6	6	6	6	6	7	7	7	7
St. Louis	7	7	7	8	8	7	8	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

National League	APRIL 23	30	MAY 7	14	21	28	JUNE 4	11	18	25	JULY 2	9	16	23	30	AUGUST 6	13	20	27	SEPTEMBER 3	10	17	24	OCTOBER 1
*New York	7	8	8	6	6	5	3	4	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	1
Brooklyn	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
St. Louis	6	1	1	5	3	3	2	3	3	3	3	3	2	3	4	5	4	3	4	4	3	3	3	3
Boston	4	1	2	2	4	4	4	5	4	5	7	6	6	6	5	4	5	5	3	3	4	4	4	4
Philadelphia	5	4	5	7	5	7	7	7	6	6	4	5	5	4	3	3	3	4	4	5	5	5	5	5
Cincinnati	8	7	7	8	8	6	6	2	4	4	5	4	4	4	6	6	6	6	6	6	6	6	6	6
Pittsburgh	2	5	3	3	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	8	7	7	7
Chicago	2	5	6	3	2	2	4	6	7	7	6	7	7	7	7	7	7	7	7	8	7	8	8	8

* Won playoff from Brooklyn, 2 games to 1.

TOP ALL-TIME HOME-RUN HITTERS

AMERICAN LEAGUE	Total	NATIONAL LEAGUE	Total
Babe Ruth	714	Mel Ott	511
Jimmy Fox	534	Johnny Mize	351
Lou Gehrig	493	Chuck Klein	300
Joe DiMaggio	361	Rogers Hornsby	299
Ted Williams	323	Ralph Kiner	257
Hank Greenberg	309	Fred (Cy) Williams	251
Al Simmons	307	Hack Wilson	244
Bob Johnson	288	Wally Berger	242
Rudy York	277	Dolph Camilli	237
Joe Gordon	253	Gabby Hartnett	236
Goose Goslin	248	Bill Nicholson	227

NOTE—Several of the players were active in both leagues. Combined totals are credited to the league in which they served longest.

1951 National League Playoff

*1st game (Oct. 1)—Giants 3, Dodgers 1.
2d game (Oct. 2)—Dodgers 10, Giants 0.
3d game (Oct. 3)—Giants 5, Dodgers 4.

* At Ebbets Field.

Giants Win 16 in a Row

One of the highlights of the 1951 National League season was a 16-game winning streak by the New York Giants in August. The skein ended when Howie Pollet of the St. Louis Cardinals, a southpaw, beat them by 2–0 at the Polo Grounds on Aug. 29. The major league record for consecutive victories is twenty-six, made by the Giants in 1916.

MAJOR LEAGUE RECORDS FOR 1951

American League

Final Standing of the Clubs

	New York	Cleveland	Boston	Chicago	Detroit	Philadelphia	Washington	St. Louis	Won	Lost	Percentage	Games Behind
New York	—	15	11	14	12	13	16	17	98	56	.636	—
Cleveland	7	—	14	10	17	16	13	16	93	61	.604	5
Boston	11	8	—	11	12	15	15	15	87	67	.565	11
Chicago	8	12	11	—	12	9	14	15	81	73	.526	17
Detroit	10	5	10	10	—	13	13	12	73	81	.474	25
Philadelphia	9	6	7	13	9	—	12	14	70	84	.455	28
Washington	6	9	7	8	9	10	—	13	62	92	.403	36
St. Louis	5	6	7	7	10	8	9	—	52	102	.338	46
Lost	56	61	67	73	81	84	92	102	—	—		

National League

Final Standing of the Clubs

	New York	Brooklyn	St. Louis	Boston	Philadelphia	Cincinnati	Pittsburgh	Chicago	Won	Lost	Percentage	Games Behind
*New York	—	11	11	14	16	17	14	15	98	59	.624	—
Brooklyn	14	—	18	12	15	14	10	14	97	60	.618	1
St. Louis	11	4	—	9	13	14	17	13	81	73	.526	15½
Boston	8	10	13	—	12	10	13	10	76	78	.494	20½
Philadelphia	6	7	9	10	—	11	15	15	73	81	.474	23½
Cincinnati	5	8	8	12	11	—	12	12	68	86	.442	28½
Pittsburgh	8	12	5	9	7	10	—	13	64	90	.416	32½
Chicago	7	8	9	12	7	10	9	—	62	92	.403	34½
Lost	59	60	73	78	81	86	90	92	—	—		

* Beat Brooklyn in title playoff.

THE LEADERS

American League

Batting—Ferris Fain, Philadelphia	344
Runs—Dom DiMaggio, Boston	113
Runs batted in—Gus Zernial, Philadelphia	129
Hits—George Kell, Detroit	191
Doubles—George Kell, Detroit; Eddie Yost, Washington	36
Triples—Orestes Minoso, Chicago	14
Home runs—Gus Zernial, Philadelphia	33
Stolen bases—Orestes Minoso, Chicago	31
Pitching—Ellis Kinder, Boston (W 11, L 2)	.846
Strikeouts—Vic Raschi, New York	164

National League

Batting—Stan Musial, St. Louis	.355
Runs—Ralph Kiner, Pittsburgh	125
Runs batted in—Monte Irvin, New York	121
Hits—Richie Ashburn, Philadelphia	221
Doubles—Alvin Dark, New York	40
Triples—Stan Musial, St. Louis; Gus Bell, Pittsburgh	12
Home runs—Ralph Kiner, Pittsburgh	42
Stolen bases—Sam Jethroe, Boston	35
Pitching—Preacher Roe, Brooklyn (W 22, L 3)	.880
Strikeouts—Warren Spahn, Boston	166

Unoffical Averages

INDIVIDUAL BATTING

	g	ab	r	h	hr	rbi	avg.
Fain, Philadelphia	117	425	63	146	6	57	.344
Minoso, Cleve.-Chi.	146	530	112	173	10	74	.326
Kell, Detroit	147	598	93	191	2	54	.319
Williams, Boston	148	531	111	169	30	126	.318
Kluttz, St. L.-Wash.	57	163	16	51	1	23	.313
Pesky, Boston	131	481	89	149	3	40	.310
McDougald, New York	131	402	72	123	14	63	.306
Hitchcock, Philadelphia	77	222	26	68	1	35	.306
Avila, Cleveland	141	542	76	165	10	56	.304
Valo, Philadelphia	124	447	77	136	7	54	.304
Coan, Washington	135	538	87	163	9	61	.303
Stephens, Boston	109	377	62	113	17	78	.300
Doby, Cleveland	134	447	84	133	20	69	.298
Dillinger, Chicago	89	299	40	89	0	20	.298
Jansen, New York	66	168	30	50	8	25	.298
Goodman, Boston	141	546	90	162	0	50	.297
Groth, Detroit	118	428	40	127	3	47	.297
DiMaggio, Boston	146	638	113	189	12	70	.296
Bauer, New York	118	348	53	103	10	53	.296
Vernon, Washington	141	545	69	161	9	87	.295
Berra, New York	141	547	91	161	27	88	.294
Mitchell, Cleveland	133	506	80	147	11	63	.291
Joost, Philadelphia	140	554	106	160	19	75	.289
Doerr, Boston	106	404	60	116	13	73	.287
Kryhoski, Detroit	118	420	58	120	12	56	.286
Collins, New York	125	262	52	75	9	48	.286
McCormick, Washington	81	243	31	70	1	21	.286
Yost, Washington	153	560	109	159	12	61	.284
Busby, Chicago	143	477	60	135	5	68	.283
Robinson, Chicago	151	564	85	159	29	117	.282
Wertz, Detroit	138	503	87	142	27	95	.282
Majeski, Chi.-Phila.	100	358	44	101	5	43	.282
Batts, Boston-St. L.	90	277	27	78	5	32	.282
Wooding, New York	119	420	65	118	15	71	.281
Mullin, Detroit	110	296	40	83	12	49	.281
Coleman, St. L.-Chi.	142	522	61	146	8	76	.280
Runnels, Washington	78	271	32	76	0	24	.280
Noren, Washington	129	509	82	142	8	83	.279
Masi, Chicago	84	222	24	62	4	29	.279
Stewart, Chicago	96	216	41	60	6	40	.278

INDIVIDUAL BATTING

	g	ab	r	h	hr	rbi	avg.
Musial, St. Louis	152	578	124	205	32	108	.355
Ashburn, Philadelphia	154	643	92	221	4	62	.344
Robinson, Brooklyn	153	548	106	185	19	88	.338
Campanella, Brooklyn	143	505	90	164	33	108	.325
Cooper, Boston	108	341	42	107	18	59	.314
Irvin, New York	151	558	94	174	24	121	.312
Wyrostek, Cincinnati	142	537	62	167	2	61	.311
Cavarretta, Chicago	88	208	24	64	6	27	.311
Kiner, Pittsburgh	151	531	125	164	42	109	.309
Dark, New York	156	646	114	196	14	68	.303
Lowrey, St. Louis	116	370	52	112	5	40	.303
Edwards, Bklyn.-Cinc.	75	155	14	47	3	23	.303
McCullough, Pittsburgh	92	259	26	77	8	38	.297
Furillo, Brooklyn	158	668	93	197	16	91	.295
Thomson, New York	148	518	89	152	32	100	.294
Metkovich, Pittsburgh	120	422	60	124	3	38	.294
Schoendienst, St. Louis	125	553	92	160	6	55	.289
Gordon, Boston	150	550	96	158	29	109	.287
Sisler, Philadelphia	125	428	47	123	8	52	.287
Reese, Brooklyn	154	615	94	176	10	84	.286
Jones, Philadelphia	148	564	79	161	22	81	.285
Elliott, Boston	136	481	73	137	15	70	.285
Baumholtz, Chicago	146	560	65	159	2	51	.284
St. Claire, Boston	72	220	22	62	1	24	.282
Lockman, New York	153	615	85	173	12	72	.281
Hemus, St. Louis	120	420	68	118	2	32	.281
Slaughter, St. Louis	123	409	48	115	4	64	.281
Jethroe, Boston	149	572	101	160	18	65	.280
Marshall, Boston	136	471	65	132	11	63	.280
Abrams, Brooklyn	67	150	27	42	3	19	.280
Cox, Brooklyn	142	455	62	127	9	61	.279
Sisti, Boston	114	365	47	102	2	38	.279
Wilber, Philadelphia	84	247	29	69	8	34	.279
Bell, Pittsburgh	149	600	80	167	16	89	.278
Snider, Brooklyn	150	606	96	168	29	101	.277
Mueller, New York	122	469	68	130	16	71	.277
Addis, Boston	85	199	23	55	1	24	.276
Mays, New York	121	464	59	127	20	68	.274
Jackson, Chicago	145	556	79	152	16	76	.273
Hermanski, Bklyn.-Chi.	105	311	36	85	4	25	.273

American League (cont.)
INDIVIDUAL BATTING (cont.)

	g	ab	r	h	hr	rbi	avg.
Mele, Washington	143	557	59	153	5	93	.275
Rizzuto, New York	144	540	87	148	2	43	.274
Brown, New York	103	313	44	84	6	51	.269
Zernial, Chi.-Phila.	143	572	95	153	33	129	.268
Carrasquel, Chicago	147	537	40	144	2	58	.268
Easter, Cleveland	128	486	67	130	27	103	.268
Mantle, New York	96	341	61	91	13	65	.267
Rosen, Cleveland	154	573	83	152	24	102	.265
Lipon, Detroit	130	487	58	129	0	30	.265
Lenhardt, St. L.-Chi.	95	302	31	80	15	63	.265
Boudreau, Boston	82	273	35	72	5	46	.264
DiMaggio, New York	116	415	72	109	12	72	.263
Tebbetts, Cleveland	55	137	8	36	2	17	.263
Priddy, Detroit	154	584	73	153	8	65	.262
Mapes, N. Y.-St. L.	100	252	3	66	9	37	.262
Arft, St. Louis	112	345	46	90	7	42	.261
Young, St. Louis	147	611	76	159	1	30	.260
Philley, Chicago-Phila.	132	493	71	128	7	60	.260
Ginsberg, Detroit	102	304	44	79	8	37	.260
Niarhos, Chicago	60	169	16	44	1	10	.260
Mize, New York	113	332	37	86	10	50	.259
Michaels, Washington	138	484	60	125	4	47	.258
Baker, Chicago	81	132	24	34	0	14	.258
Keller, Detroit	54	62	6	16	3	21	.258
Zarilla, Chicago	120	383	56	98	10	60	.256
Vollmer, Boston	115	385	67	98	22	63	.256
Kolloway, Detroit	78	212	28	54	1	19	.255
Clark, Cleve.-Phila.	69	173	23	44	5	22	.254
Lollar, St. Louis	99	313	43	79	8	42	.252
Souchock, Detroit	91	188	33	47	11	28	.250
Coleman, New York	121	362	48	90	3	44	.249
Deising, St. Louis	131	450	58	111	8	64	.247
Marsh, St. Louis	130	445	44	110	4	43	.247
Kennedy, Cleveland	108	320	30	79	7	29	.247
Suder, Philadelphia	123	441	46	107	1	42	.243
Dropo, Boston	99	358	37	87	11	56	.243
Hegan, Cleveland	132	415	60	99	6	42	.239

PITCHING RECORDS

	g	ip	h	bb	so	w	l	pct.
Aloma, Chicago	25	69	52	24	26	6	0	1.000
Kinder, Boston	63	128	109	46	84	11	2	.846
Morgan, New York	27	125	120	32	56	9	3	.750
Feller, Cleveland	33	250	239	95	111	22	8	.733
Martin, Philadelphia	35	140	139	64	35	11	4	.733
Lopat, New York	31	235	209	71	90	21	9	.700
Reynolds, New York	40	221	171	98	126	17	8	.680
Raschi, New York	35	258	230	103	166	21	10	.677
Rotblatt, Chicago	26	48	44	23	19	4	2	.667
Shantz, Philadelphia	32	205	213	70	77	18	10	.643
Gromek, Cleveland	26	107	97	29	38	7	4	.636
Nixon, Boston	33	125	136	55	66	7	4	.636
Garver, St. Louis	33	244	237	96	82	20	12	.625
Parnell, Boston	36	221	229	74	75	18	11	.621
Trucks, Detroit	37	154	151	72	83	13	8	.619
Kuzava, Wash.-N. Y.	31	136	134	54	72	11	7	.611
Wynn, Cleveland	37	274	227	112	127	20	13	.606
Garcia, Cleveland	47	254	239	83	116	20	13	.606
Rogovin, Det.-Chi.	27	217	184	74	80	12	8	.600
Ostrowski, New York	34	97	105	19	30	6	4	.600
Scarborough, Boston	37	184	201	64	68	12	9	.571
Kucab, Philadelphia	29	73	75	22	23	4	3	.571
Marrero, Washington	25	187	197	71	63	11	9	.550
Lemon, Cleveland	42	263	246	124	135	17	14	.548
Hooper, Philadelphia	38	189	193	62	34	12	10	.545
Dobson, Chicago	20	147	136	61	64	7	6	.538
Porterfield, N. Y.-Wash.	21	136	110	58	56	9	8	.529
Gumpert, Chicago	33	142	156	34	42	9	8	.529
Stobbs, Boston	34	170	180	74	71	10	9	.526
Pierce, Chicago	37	240	237	72	113	16	14	.517
Cain, Chi.-Detroit	39	176	160	95	62	12	12	.500
Hutchinson, Detroit	31	188	204	27	64	10	10	.500
McDermott, Boston	34	172	143	93	129	8	8	.500
Kiely, Boston	17	113	114	39	47	7	7	.500
Wight, Boston	34	118	128	63	38	7	7	.500
Newhouser, Detroit	15	96	98	19	36	6	6	.500
Shea, New York	26	46	112	60	35	5	5	.500
Holcombe, Chicago	28	159	142	68	38	11	12	.478
Concuegra, Washington	40	146	140	62	31	7	8	.467
Judson, Chicago	27	122	124	55	42	5	6	.455
Dorish, Chicago	32	97	101	29	29	5	6	.455
Brissie, Phila.-Cleve.	56	123	108	68	54	4	5	.444
Kellner, Philadelphia	33	210	218	86	88	11	14	.440

CLUB BATTING

	g	r	h	hr	rbi	sb	avg.	was shut out
Chicago	155	714	1453	8	663	96	.270	8
New York	154	798	1394	140	737	72	.[illegible]	4
Boston	154	802	1438	127	758	18	.266	6
Washington	154	673	1408	54	615	43	.265	15
Detroit	154	685	141[illegible]	104	600	31	.264	12
Philadelphia	154	726	1391	102	668	5	.263	9
Cleveland	155	704	1348	140	654	47	.257	9
St. Louis	154	641	1288	86	547	32	.247	10

National League (cont.)
INDIVIDUAL BATTING (cont.)

	g	ab	r	h	hr	rbi	avg.
Jeffcoat, Chicago	111	278	43	76	4	27	.273
Hartsfield, Boston	120	449	62	122	6	31	.272
Howerton, St. L.-Pitts.	104	283	40	77	12	42	.272
Reiser, Pittsburgh	72	140	22	38	2	13	.271
Hodges, Brooklyn	153	528	118	156	40	103	.268
Ennis, Philadelphia	144	532	76	142	15	73	.267
Jones, St. Louis	80	300	20	80	3	41	.267
Rojek, Pitts.-St. L.	59	202	21	54	0	14	.267
Westlake, Pitts.-St. L.	123	448	64	119	22	84	.266
Adams, Cincinnati	126	403	57	107	5	23	.266
Miksis, Bklyn.-Chi.	121	431	54	114	4	35	.265
Torgeson, Boston	155	581	99	153	24	91	.263
Nelson, St. L.-Pitts.	71	213	32	56	1	14	.263
Kluszewski, Cincinnati	154	607	77	159	13	77	.262
Sauer, Chicago	141	527	78	138	30	89	.262
Johnson, St. Louis	124	442	61	116	14	61	.262
Castiglione, Pittsburgh	131	482	62	125	7	41	.259
Diering, St. Louis	64	85	9	22	0	8	.259
Waitkus, Philadelphia	145	611	65	157	1	46	.257
Burgess, Chicago	93	219	21	56	2	19	.256
Hamner, Philadelphia	150	589	60	150	9	72	.255
Pafko, Chi.-Bklyn.	133	455	68	116	30	91	.255
Hatton, Cincinnati	96	331	41	84	4	38	.254
H. Rice, St. Louis	69	236	20	60	4	38	.254
Bridges, Brooklyn	63	134	13	34	1	15	.254
D. Rice, St. Louis	122	374	34	94	9	44	.251
Howell, Cincinnati	127	307	22	52	2	18	.251
Stanky, New York	145	515	88	129	14	42	.247
Adcock, Cincinnati	112	389	40	96	10	46	.247
Ramazzotti, Chicago	74	158	13	39	1	15	.247
Merriman, Cincinnati	114	359	34	87	5	36	.242
Stallcup, Cincinnati	121	428	33	103	8	48	.241
Nicholson, Philadelphia	84	170	23	41	8	31	.241
Garagiola, St. L.-Pitts.	99	284	32	68	11	43	.239
Connors, Chicago	66	201	16	48	2	18	.239
Walker, Chi.-Bklyn.	73	181	15	43	4	14	.238
Ryan, Cincinnati	136	473	76	112	16	52	.237

PITCHING RECORDS

	g	ip	h	bb	so	w	l	pct.
Roe, Brooklyn	34	258	247	64	112	22	3	.880
Corwin, New York	15	59	49	21	30	5	1	.833
Labine, Brooklyn	14	65	52	20	39	5	1	.833
Maglie, New York	42	298	253	83	145	23	6	.793
Spencer, New York	67	122	127	56	35	10	4	.714
Newcombe, Brooklyn	40	272	235	94	161	20	9	.690
Jansen, New York	39	279	254	56	144	23	11	.676
King, Brooklyn	48	121	118	50	33	14	7	.667
Brecheen, St. Louis	24	139	134	52	59	8	4	.667
Hearn, New York	34	211	204	82	66	17	9	.654
Presko, St. Louis	15	88	85	20	38	7	4	.636
Kelly, Chicago	35	124	129	55	48	7	4	.636
Leonard, Chicago	41	82	69	28	23	10	6	.625
Spahn, Boston	39	311	276	107	166	22	14	.611
Staley, St. Louis	42	227	244	73	67	19	13	.594
Roberts, Philadelphia	44	315	284	64	127	21	15	.583
Nichols, Boston	33	158	140	69	70	11	8	.579
Church, Philadelphia	38	247	246	90	104	13	11	.577
Erskine, Brooklyn	46	190	205	78	92	16	12	.571
Werle, Pittsburgh	59	152	161	51	57	8	6	.571
Chipman, Boston	33	52	59	18	17	4	3	.571
Dickson, Pittsburgh	45	288	294	101	112	20	16	.556
Bickford, Boston	26	165	147	76	75	11	9	.550
Lanier, St. Louis	31	160	149	50	60	11	9	.550
Brazle, St. Louis	56	155	139	61	67	6	5	.545
Chambers, Pitts.-St. L.	31	189	184	87	63	14	12	.538
Koslo, New York	39	150	152	45	54	10	9	.526
Branca, Brooklyn	42	206	179	85	118	13	12	.520
Blackwell, Cincinnati	37	233	205	97	120	16	15	.516
Wilson, Boston	20	110	134	41	33	7	7	.500
Klippstein, Chicago	35	124	125	53	66	6	6	.500
Smith, Cincinnati	52	76	63	22	33	6	6	.500
Bokelmann, St. Louis	20	62	49	31	22	3	3	.500
Raffensberger, Cinc.	42	249	232	38	80	16	17	.485
Rush, Chicago	37	211	212	70	130	11	12	.478
Meyer, Philadelphia	28	168	172	55	65	8	9	.471
Queen, Pittsburgh	38	167	150	97	122	7	9	.438
Surkont, Boston	37	238	230	91	107	12	16	.429
Wehmeier, Cincinnati	39	185	167	89	92	7	10	.412
Law, Pittsburgh	28	114	109	51	42	6	9	.400
Munger, St. Louis	23	95	106	46	44	4	6	.400
Fox, Cincinnati	40	228	239	70	58	9	14	.391
Johnson, Philadelphia	20	106	103	68	58	5	8	.385

CLUB BATTING

	g	ab	r	h	hr	rbi	sb	avg.	was shut out
Brooklyn	158	5490	855	1510	184	783	82	.275	3
St. Louis	155	5317	683	1404	95	621	31	.264	12
Boston	155	5291	723	1384	130	681	75	.262	13
New York	157	5361	781	1395	179	733	64	.260	7
Philadelphia	155	6356	651	1389	107	604	57	.259	13
Pittsburgh	155	5318	689	1371	137	646	31	.258	14
Chicago	155	5299	614	1327	102	561	62	.250	18
Cincinnati	155	5283	559	1309	87	521	43	.248	10

National League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.
1876	Chicago	Albert G. Spalding	52	14	.788
1877	Boston	Harry Wright	31	17	.646
1878	Boston	Harry Wright	41	19	.683
1879	Providence	George Wright	59	25	.702
1880	Chicago	Adrian C. Anson	67	17	.798
1881	Chicago	Adrian C. Anson	56	28	.667
1882	Chicago	Adrian C. Anson	55	29	.655
1883	Boston	John F. Morrill	63	35	.643
1884	Providence	Frank C. Bancroft	84	28	.750
1885	Chicago	Adrian C. Anson	87	25	.777
1886	Chicago	Adrian C. Anson	90	34	.726
1887	Detroit	W. H. Watkins	79	45	.637
1888	New York	James J. Mutrie	84	47	.641
1889	New York	James J. Mutrie	83	43	.659
1890	Brooklyn	William H. McGunnigle	86	43	.667
1891	Boston	Frank G. Selee	87	51	.630
1892	Boston	Frank G. Selee	102	48	.680
1893	Boston	Frank G. Selee	86	43	.667
1894	Baltimore	Edward H. Hanlon	89	39	.695
1895	Baltimore	Edward H. Hanlon	87	43	.669
1896	Baltimore	Edward H. Hanlon	90	39	.698
1897	Boston	Frank G. Selee	93	39	.705
1898	Boston	Frank G. Selee	102	47	.685
1899	Brooklyn	Edward H. Hanlon	88	42	.677
1900	Brooklyn	Edward H. Hanlon	82	54	.603
1901	Pittsburgh	Fred C. Clarke	90	49	.647
1902	Pittsburgh	Fred C. Clarke	103	36	.741
1903	Pittsburgh	Fred C. Clarke	91	49	.650
1904	New York	John J. McGraw	106	47	.693
1905*	New York	John J. McGraw	105	48	.686
1906	Chicago	Frank L. Chance	116	36	.763
1907*	Chicago	Frank L. Chance	107	45	.704
1908*	Chicago	Frank L. Chance	99	55	.643
1909*	Pittsburgh	Fred C. Clarke	110	42	.724
1910	Chicago	Frank L. Chance	104	50	.675
1911	New York	John J. McGraw	99	54	.647
1912	New York	John J. McGraw	103	48	.682
1913	New York	John J. McGraw	101	51	.664
1914*	Boston	George T. Stallings	94	59	.614
1915	Philadelphia	Patrick J. Moran	90	62	.592
1916	Brooklyn	Wilbert Robinson	94	60	.610
1917	New York	John J. McGraw	98	56	.636
1918	Chicago	Fred L. Mitchell	84	45	.651
1919*	Cincinnati	Patrick J. Moran	96	44	.686
1920	Brooklyn	Wilbert Robinson	93	61	.604
1921*	New York	John J. McGraw	94	59	.614
1922*	New York	John J. McGraw	93	61	.604
1923	New York	John J. McGraw	95	58	.621
1924	New York	John J. McGraw	93	60	.608
1925*	Pittsburgh	William B. McKechnie	95	58	.621
1926*	St. Louis	Rogers Hornsby	89	65	.578
1927	Pittsburgh	Owen J. Bush	94	60	.610
1928	St. Louis	William B. McKechnie	95	59	.617
1929	Chicago	Joseph V. McCarthy	98	54	.645
1930	St. Louis	Charles E. Street	92	62	.597
1931*	St. Louis	Charles E. Street	101	53	.656
1932	Chicago	Charles J. Grimm	90	64	.584
1933*	New York	William H. Terry	91	61	.590
1934*	St. Louis	Frank F. Frisch	95	58	.621
1935	Chicago	Charles J. Grimm	100	54	.649
1936	New York	William H. Terry	92	62	.597
1937	New York	William H. Terry	95	57	.625
1938	Chicago	Charles L. Hartnett	89	63	.586
1939	Cincinnati	William B. McKechnie	97	57	.630
1940*	Cincinnati	William B. McKechnie	100	53	.654
1941	Brooklyn	Leo E. Durocher	100	54	.649
1942*	St. Louis	William H Southworth	106	48	.688
1943	St. Louis	William H. Southworth	105	49	.682
1944*	St. Louis	William H. Southworth	105	49	.682
1945	Chicago	Charles J. Grimm	98	56	.636
1946*	St. Louis	Edwin H. Dyer	98	58	.628
1947	Brooklyn	Burton E. Shotton	94	60	.610
1948	Boston	William H. Southworth	91	62	.595
1949	Brooklyn	Burton E. Shotton	97	57	.630
1950	Philadelphia	Edwin M. Sawyer	91	63	.591
1951	New York	Leo E. Durocher	98	59	624

* World Series winner.

American League Pennant Winners

Year	Club	Manager	Won	Lost	Pct.
1901	Chicago	Clark C. Griffith	83	53	.610
1902	Philadelphia	Connie Mack	83	53	.610
1903*	Boston	James J. Collins	91	47	.659
1904	Boston	James J. Collins	95	59	.617
1905	Philadelphia	Connie Mack	92	56	.622
1906*	Chicago	Fielder A. Jones	93	58	.616
1907	Detroit	Hugh A. Jennings	92	58	.613
1908	Detroit	Hugh A. Jennings	90	63	.588
1909	Detroit	Hugh A. Jennings	98	54	.645
1910*	Philadelphia	Connie Mack	102	48	.680
1911*	Philadelphia	Connie Mack	101	50	.669
1912*	Boston	J. Garland Stahl	105	47	.691
1913*	Philadelphia	Connie Mack	96	57	.627
1914	Philadelphia	Connie Mack	99	53	.651
1915*	Boston	William F. Carrigan	101	50	.669
1916*	Boston	William F. Carrigan	91	63	.591
1917*	Chicago	Clarence H. Rowland	100	54	.649
1918*	Boston	Edward G. Barrow	75	51	.595
1919	Chicago	William Gleason	88	52	.629
1920*	Cleveland	Tris E. Speaker	98	56	.636
1921	New York	Miller J. Huggins	98	55	.641
1922	New York	Miller J Huggins	94	60	.610
1923*	New York	Miller J. Huggins	98	54	.645
1924*	Washington	Stanley R Harris	92	62	.597
1925	Washington	Stanley R. Harris	96	55	.636
1926	New York	Miller J. Huggins	91	63	.591
1927*	New York	Miller J. Huggins	110	44	.714
1928*	New York	Miller J. Huggins	101	53	.656
1929*	Philadelphia	Connie Mack	104	46	.693
1930*	Philadelphia	Connie Mack	102	52	.662
1931	Philadelphia	Connie Mack	107	45	.704
1932*	New York	Joseph V. McCarthy	107	47	.695
1933	Washington	Joseph E. Cronin	99	53	.651
1934	Detroit	Gordon S. Cochrane	101	53	.656
1935*	Detroit	Gordon S. Cochrane	93	58	.616
1936*	New York	Joseph V. McCarthy	102	51	.657
1937*	New York	Joseph V. McCarthy	102	52	.662
1938*	New York	Joseph V. McCarthy	99	53	.651
1939*	New York	Joseph V. McCarthy	106	45	.702
1940	Detroit	Delmar D Baker	90	64	.584
1941*	New York	Joseph V. McCarthy	101	53	.656
1942	New York	Joseph V. McCarthy	103	51	.669
1943*	New York	Joseph V. McCarthy	98	56	.636
1944	St. Louis	James L. Sewell	89	65	.578
1945*	Detroit	Stephen F. O'Neill	88	65	.575
1946	Boston	Joseph E. Cronin	104	50	.675
1947*	New York	Stanley R. Harris	97	57	.630
1948*	Cleveland	Louis Boudreau	97	58	.626
1949*	New York	Charles D Stengel	97	57	.630
1950*	New York	Charles D. Stengel	98	56	.636
1951*	New York	Charles D. Stengel	98	56	.633

* World Series winner.

National League Batting Champions

(Based on minimum of 100 games played.)

Year	Avg.
1876—R. Barnes, Chi.	403
1877—J. L. White, Bos.	385
1878—A. Dalrymple, Mil.	356
1879—A. C. Anson, Chi.	407
1880—G. F. Gore, Chi.	365
1881—A. C. Anson, Chi.	399
1882—D. Brouthers, Buf.	367
1883—D. Brouthers, Buf.	371
1884—J. O'Rourke, Buf.	350
1885—R. Connor, N. Y.	371
1886—M. J. Kelly, Chi.	388
1887—A. C. Anson, Chi.	421
1888—A. C. Anson, Chi.	343
1889—D. Brouthers, Bos.	373
1890—J. Glasscock, N. Y.	336
1891—W. Hamilton, Phila.	338
1892—C. Childs, Cleve.	335
1892—D. Brouthers, Bklyn.	335
1893—Hugh Duffy, Bos.	378
1894—Hugh Duffy, Bos.	438
1895—J. Burkett, Cleve.	423
1896—J. Burkett, Cleve.	410
1897—W. Keeler, Balt.	432
1898—W. Keeler, Balt.	379
1899—E. J. Delahanty, Phila.	408
1900—J. P. Wagner, Pitts.	380
1901—J. Burkett, St. L.	382
1902—C. H. Beaumont, Pitts.	357
1903—J. P. Wagner, Pitts.	355
1904—J. P. Wagner, Pitts.	349
1905—J. B. Seymour, Cin.	377
1906—J. P. Wagner, Pitts.	339
1907—J. P. Wagner, Pitts.	350
1908—J. P. Wagner, Pitts.	354
1909—J. P. Wagner, Pitts.	339
1910—S. N. Magee, Phila.	331
1911—J. P. Wagner, Pitts.	334
1912—H. Zimmerman, Chi.	372
1913—J. Daubert, Bklyn.	350
1914—J. Daubert, Bklyn.	329
1915—L. Doyle, N. Y.	320
1916—H. Chase, Cin.	339
1917—E. J. Roush, Cin.	341
1918—Z. D. Wheat, Bklyn.	335
1919—E. J. Roush, Cin.	321
1920—Rogers Hornsby, St. L.	370
1921—Rogers Hornsby, St. L.	397
1922—Rogers Hornsby, St. L.	401
1923—Rogers Hornsby, St. L.	384
1924—Rogers Hornsby, St. L.	424
1925—Rogers Hornsby, St. L.	403
1926—Eugene Hargrave, Cin.	353
1927—Paul G. Waner, Pitts.	380
1928—Rogers Hornsby, Bos.	387
1929—Frank J. O'Doul, Phila.	398
1930—Wm. H. Terry, N. Y.	401
1931—C. J. Hafey, St. L.	349
1932—F. J. O'Doul, Bklyn.	368
1933—C. H. Klein, Phila.	368
1934—P. G. Waner, Pitts.	362
1935—F. Vaughan, Pitts.	385
1936—P. G. Waner, Pitts.	373
1937—J. M. Medwick, St. L.	374
1938—E. N. Lombardi, Cin.	342
1939—J. R. Mize, St. L.	349
1940—D. Garms, Pitts.	355
1941—H. P. Reiser, Bklyn.	343
1942—E. N. Lombardi, Bos.	330
1943—S. F. Musial, St. L.	357
1944—F. Walker, Bklyn.	357
1945—P. J. Cavarretta, Chicago	355
1946—S. F. Musial, St. L.	365
1947—H. W. Walker, Phila.	363
1948—S. F. Musial, St. L.	376
1949—J. R. Robinson, Bklyn.	342
1950—S. F. Musial, St. L.	346
1951—S. F. Musial, St. L.	355

American League Batting Champions

(Based on minimum of 100 games played.)

1901—N. Lajoie, Phila.	405
1902—E. J. Delahanty, Wash.	376
1903—N. Lajoie, Cleve.	355
1904—N. Lajoie, Cleve.	381
1905—Elmer Flick, Cleve.	306
1906—G. Stone, St. L.	358
1907—T. R. Cobb, Det.	350
1908—T. R. Cobb, Det.	324
1909—T. R. Cobb, Det.	377
1910—T. R. Cobb, Det.	385
1911—T. R. Cobb, Det.	420
1912—T. R. Cobb, Det.	410
1913—T. R Cobb, Det.	390
1914—T. R. Cobb, Det.	368
1915—T. R. Cobb, Det.	369
1916—T. Speaker, Cleve.	386
1917—T. R. Cobb, Det.	383
1918—T. R. Cobb, Det.	382
1919—T. R. Cobb, Det.	384
1920—G. H. Sisler, St. L.	407
1921—H. E. Heilmann, Det.	394
1922—G. H. Sisler, St. L.	420
1923—H. E. Heilmann, Det.	403
1924—G. H. Ruth, N. Y.	378
1925—H. E. Heilmann, Det.	393
1926—H. E. Manush, Det.	378
1927—H. E. Heilmann, Det.	398
1928—L. A. Goslin, Wash.	379
1929—L. A. Fonseca, Cleve.	369
1930—A. H. Simmons, Phila.	381
1931—A. H. Simmons, Phila.	390
1932—D. Alexander, Det.-Bos.	367
1933—J. E. Foxx, Phila.	356
1934—H. L. Gehrig, N. Y.	363
1935—C. S. Myer, Wash.	349
1936—L. B. Appling, Chi.	383
1937—C. L. Gehringer, Det.	371
1938—J. E. Foxx, Bos.	349
1939—J. P. DiMaggio, N. Y.	381
1940—J. P. DiMaggio, N. Y.	352
1941—T. S. Williams, Bos.	406
1942—T. S. Williams, Bos.	356
1943—L. B. Appling, Chi.	328
1944—L. Boudreau, Cleve.	327
1945—G. H. Stirnweiss, N. Y.	309
1946—J. B. Vernon, Wash.	353
1947—T. S. Williams, Bos.	343
1948—T. S. Williams, Bos.	369
1949—G. C. Kell, Det.	343
1950—W. D. Goodman, Bos.	354
1951—Ferris Fain, Phila.	344

National Baseball Congress Champions

1935—Bismarck (N. D.) Corwin-Churchill
1936—Duncan (Okla.) Halliburtons
1937—Enid (Okla.) Eason Oilers
1938—Buford (Ga.) Bona Allens
1939—Duncan (Okla.) Halliburtons
1940—Enid (Okla.) Champlins
1941—Enid (Okla.) Champlins
1942—Wichita (Kans.) Boeing Bombers
1943—Camp Wheeler (Ga.) Spokes
1944—Sherman Field (Kans.) Flyers
1945—Enid (Okla.) Army Air Field
1946—St. Joseph (Mich.) Autos
1947—Ft. Wayne (Ind.) General Electrics
1948—Ft. Wayne (Ind.) General Electrics
1949—Ft. Wayne (Ind.) General Electrics
1950—Ft. Wayne (Ind.) Capeharts
1951—Sinton (Texas) Plymouth Oilers

Feller's Pitching Masterpieces

NO-HIT GAMES

Date	Opponent	Score	SO	BB
April 16, 1940	Chicago	1-0	8	5
April 30, 1946	New York	1-0	11	5
July 1, 1951	Detroit	2-1	5	3

ONE-HIT GAMES

(All hits were singles)

April 20, 1938	St. Louis	9-0	6	6
May 25, 1939	Boston	11-0	10	5
June 27, 1939	Detroit	5-0	13	6
July 12, 1940	Philadelphia	1-0	13	2
Sept. 26, 1941	St. Louis	3-2	6	7
Sept. 19, 1945	Detroit	2-0	7	4
July 31, 1946	Boston	4-1	9	9
Aug 8, 1946	Chicago	5-0	5	3
April 22, 1947	St. Louis	5-0	10	1
May 2, 1947	Boston	2-0	10	6

Major League Individual All-Time Records

Highest batting average, season—Hugh Duffy, Boston (N), 1894 438

Highest batting average (10 or more years)—Ty Cobb, Detroit and Philadelphia (A), 1905–28 367

Most years batting over .300—Ty Cobb 23

Most hits—Ty Cobb 4,191

Most hits, season—George Sisler, St. Louis (A), 1920 257

Most consecutive hits, game—Wilbert Robinson, Baltimore (N), 1892 7

Most hits in succession—Frank Higgins, Boston (A), 1938 12

Most consecutive games batted safely—Joe DiMaggio, New York (A), May 15 to July 16, 1941, inclusive 56

Most long hits—Babe Ruth, Boston and New York (A), Boston (N), 1914–35 (506 2b, 136 3b, 714 home runs) 1,356

Most total bases—Ty Cobb 5,863

Most total bases, season—Babe Ruth, New York (A), 1921 457

Most total bases, game—Bobby Lowe, Boston (N), 1894; Ed Delahanty, Philadelphia (N), 1896; Gil Hodges, Brooklyn, 1950 17

Most home runs—Babe Ruth 714

Most home runs, season—Babe Ruth, New York (A), 1927 60

Most home runs, 1 game—Lowe, Boston (N), 1894; Delahanty, Phila. (N), 1896; Gehrig, N. Y. (A), 1932; Klein, Phila. (N), 1936 (10 innings); Seerey, Chicago (A), 1948 (11 innings); Hodges, Brooklyn, 1950 4

Most 3-base hits—Sam Crawford, Cincinnati (N), 1899–1902; Detroit (A), 1903–17 312

Most 3-base hits, season—J. Owen Wilson, Pittsburgh (N), 1912 36

Most 2-base hits—Tris E. Speaker, Boston, Cleveland, Washington, Philadelphia (A), 1907–28 793

Most 2-base hits, season—Earl W. Webb, Boston (A), 1931 67

Most singles—Ty Cobb 3,052

Most singles, season (modern record)—Lloyd Waner, Pittsburgh (N), 1927 198

Most runs—Ty Cobb 2,244

Most runs batted in—Babe Ruth ... 2,209

Most runs batted in, season—Hack Wilson, Chicago (N), 1930 190

Most runs batted in, single game—James L. Bottomley, St. Louis (N) vs. Brooklyn, Sept. 16, 1924 12

Most games played—Ty Cobb 3,033

Most consecutive games played—Lou Gehrig, New York (A). Streak started June 1, 1925, and stopped May 2, 1939 2,130

Longest service as player—Eddie Collins, Philadelphia and Chicago (A), 1906–30; Bobby Wallace, Cleveland (N) and St. Louis (A), 1894–1918 ..... 25 years

Most times at bat—Ty Cobb 11,429

Most bases on balls—Babe Ruth 2,056

Most bases on balls, season—Babe Ruth, 1923 170

Most bases on balls, game (modern record)—Jimmy Foxx Boston (A), 1938 6

Most stolen bases—Ty Cobb 892

Most stolen bases, season (modern record)—Ty Cobb, Detroit (A), 1915 96

Fewest strikeouts, season (150 or more games)—Joe Sewell, Cleveland (A), 1925, 1929 4

Most consecutive years manager, one club—Connie Mack, Phila. (A), 1901–50 . 50

PITCHING

Most games—Cy Young (516 in National League, 390 in American League), 1890–1911 906

Most games won—Cy Young, Cleveland (N), 1890–98; St. Louis (N), 1899–1900; Boston (A), 1901–08; Cleveland (A), 1909–11 (part); Boston (N), 1911 (part) 511

Most complete games, season—Jack Chesbro, New York (A), 1904 48

Most games, season (modern record)—Jim Konstanty, Philadelphia (N), 1950 .. 74

Most innings, season—Ed Walsh, Chicago (A), 1908 464

Lowest earned-run average, season—Ferdie Schupp, New York (N), 1916 ..... 0.90

Fewest hits in two consecutive games—John Vander Meer, Cincinnati (N), 1938 (both no-hit games) 0

Most games won, season (modern record)—Jack Chesbro, New York (A), 1904 . 41

Most consecutive games won, season—Tim Keefe, New York (N), 1888; Rube Marquard, New York (N), 1912 19

Most shutout games—Walter Johnson, Washington (A), 1907–27 113

Most shutout games, season—Grover Alexander, Philadelphia (N), 1916 16

Most consecutive shutout innings—Walter Johnson, 1913 56

Most strikeouts—Walter Johnson ... 3,497

Most strikeouts, season (modern record)—Bobby Feller, Cleveland (A), 1946 .. 348

Most strikeouts in 9 innings (1901 to date)—Bobby Feller, Cleveland (A) vs. Detroit, Oct. 2, 1938 18

RECORD OF MAJOR LEAGUE ALL-STAR GAMES

Date	Winning league and pitcher	Runs	Losing league and pitcher	Runs	Where held	Paid attendance	Receipts
July 6, 1933	American (Gomez)	4	National (Hallahan)	2	Chicago (A)	49,200	$ 51,203.50*
July 10, 1934	American (Harder)	9	National (Mungo)	7	New York (N)	48,363	52,982.00
July 8, 1935	American (Gomez)	4	National (Walker)	1	Cleveland (A)	69,812	82,179.12
July 7, 1936	National (J. Dean)	4	American (Grove)	3	Boston (N)	25,556	24,588.80
July 7, 1937	American (Gomez)	8	National (J. Dean)	3	Washington (A)	31,391	28,475.18
July 6, 1938	National (Vander Meer)	4	American (Gomez)	1	Cincinnati (N)	27,067	38,463.05
July 11, 1939	American (Bridges)	3	National (Lee)	1	New York (A)	62,892	75,701.00
July 9, 1940	National (Derringer)	4	American (Ruffing)	0	St. Louis (N)	32,373	36,723.03
July 8, 1941	American (Smith)	7	National (Passeau)	5	Detroit (A)	54,674	63,267.08
July 6, 1942	American (Chandler)	3	National (M. Cooper)	1	New York (N)	33,694	86,102.98†
July 13, 1943	American (Leonard)	5	National (M. Cooper)	3	Philadelphia (A)	31,938	65,674.00†
July 11, 1944	National (Raffensberger)	7	American (Hughson)	1	Pittsburgh (N)	29,589	81,275.00
1945—No game.							
July 9, 1946	American (Feller)	12	National (Passeau)	0	Boston (A)	34,906	89,071.00
July 8, 1947	American (Shea)	2	National (Sain)	1	Chicago (N)	41,123	105,314.90
July 13, 1948	American (Raschi)	5	National (Schmitz)	2	St. Louis (A)	34,009	93,447.07
July 12, 1949	American (Trucks)	11	National (Newcombe)	7	Brooklyn (N)	32,557	79,225.02
July 11, 1950	‡National (Blackwell)	4	American (Gray)	3	Chicago (A)	46,127	126,179.51

* An additional $5,175 was received for radio rights. † Additional funds were received from other sources. ‡ Fourteen innings.

BOX SCORE OF 1951 ALL-STAR GAME

At Briggs Stadium, Detroit, July 10

NATIONAL LEAGUE

	bats	ab.	r.	h.	po.	a.	e.
Ashburn, Philadelphia, cf. .	L	4	2	2	4	1	0
Snider, Brooklyn, cf.	L	0	0	0	0	0	0
Dark, Boston, ss.	R	5	0	1	0	3	0
Reese, Brooklyn, ss.	R	0	0	0	0	1	0
Musial, St. Louis, lf-rf. . . .	L	4	1	2	0	0	0
Westlake, Pittsburgh, lf. . . .	R	0	0	0	0	0	0
J. Robinson, Brooklyn, 2b. .	R	4	1	2	3	1	1
Schoendienst, St. Louis, 2b	L-R	0	0	0	0	0	0
Hodges, Brooklyn, 1b.	R	5	2	2	6	0	0
Elliott, Boston, 3b.	R	2	1	1	1	1	0
Jones, Philadelphia, 3b. . . .	R	2	0	0	3	0	0
Ennis, Philadelphia, rf. . . .	R	2	0	0	0	0	0
Kiner, Pittsburgh, lf.	R	2	1	1	1	0	0
Wyrostek, Cincinnati, rf. . .	L	1	0	0	0	0	0
Campanella, Brooklyn, . . .	R	4	0	0	9	1	0
Roberts, Philadelphia, p. . .	L	0	0	0	0	0	0
a Slaughter, St. Louis.	L	1	0	0	0	0	0
Maglie, New York, p.	R	1	0	0	0	0	0
Newcombe, Brooklyn, p. . . .	L	2	0	1	0	1	0
Blackwell, Cincinnati, p. . . .	R	0	0	0	0	0	0
Totals.		39	8	12	27	9	1

AMERICAN LEAGUE

	bats	ab.	r.	h.	po.	a.	e.
D. DiMaggio, Boston, cf. . . .	R	5	0	1	1	0	0
Fox, Chicago, 2b.	L	3	0	1	3	1	1
Doerr, Boston, 2b.	R	1	0	1	1	0	0
Kell, Detroit, 3b.	R	3	1	1	4	2	0
Williams, Boston, lf.	L	3	0	1	3	0	0
Busby, Chicago, lf.	R	0	0	0	0	0	0
Berra, New York, c.	L	4	1	1	4	2	1
Wertz, Detroit, rf.	L	3	1	1	2	0	0
Rizzuto, New York, ss.	R	1	0	0	1	2	0
Fain, Philadelphia, 1b.	L	3	0	1	5	0	0
E. Robinson, Chicago, 1b. . .	L	1	0	0	0	1	0
Carrasquel, Chicago, ss. . . .	R	2	0	1	0	3	0
Minoso, Chicago, rf.	R	2	0	0	2	0	0
Garver, St. Louis, p.	R	1	0	0	0	0	0
Lopat, New York, p.	L	0	0	0	0	0	0
b Doby, Cleveland.	L	1	0	0	0	0	0
Hutchinson, Detroit, p. . . .	L	0	0	0	0	0	0
c Stephens, Boston.	R	1	0	0	0	0	0
Parnell, Boston, p.	L	0	0	0	0	0	0
Lemon, Cleveland, p.	L	0	0	0	1	0	0
d Hegan, Cleveland.	R	1	0	1	0	0	0
Totals.		35	3	10	27	11	2

a Flied out for Roberts in third. b Popped out for Lopat in fourth. c Struck out for Hutchinson in seventh. d Doubled for Lemon in ninth.

National League	1	0	0	3	0	2	1	1	0—8
American League	0	1	0	1	1	0	0	0	0—3

Runs batted in—Fain, Musial, Elliott 2, Wertz, Kell, Hodges 2, Robinson, Kiner. Two-base hits—Ashburn, Hegan. Three-base hits—Fain, Williams. Home runs—Musial, Elliott, Wertz, Kell, Hodges, Kiner. Sacrifice—Kell. Double play—Berra and Kell. Left on bases—National 8, American 9.

Bases on balls—Off Garver 1 (Musial), Hutchinson 2 (Robinson, Ashburn), Parnell 1 (Jones), Roberts 1 (Kell), Maglie 1 (Williams), Blackwell 1 (Doerr). Struck out—By Garver 1 (Ennis), Parnell 1 (Jones), Lemon 1 (Hodges), Roberts 1 (Garver), Maglie 1 (Williams), Newcombe 3 (Fain, Stephens, D. DiMaggio), Blackwell 2 (D. DiMaggio, Kell).

Hits—Off Roberts 4 in 2 innings, Garver 1 in 3, Lopat 3 in 1, Maglie 3 in 3, Hutchinson 3 in 3, Parnell 3 in 1, Newcombe 2 in 3, Lemon 2 in 1, Blackwell 1 in 1. Passed ball—Campanella. Winning pitcher—Maglie, Losing pitcher—Lopat.

Umpires—Passarella (A), Robb (N), Hurley (A), Jorda (N), Honochick (A), Dascoli (N). Time—2:41. Attendance—52,075. Receipts $124,294.07.

Reynolds Hurls 2 No-hitters

Allie Reynolds of the New York Yankees pitched two of the four no-hit games in the majors in 1951. The right-hander, the first hurler in the American League to gain two no-hitters in one season, beat the Indians, 1–0, in a night game in Cleveland on July 12 and turned back the Boston Red Sox, 8–0, at the Yankee Stadium on Sept. 23.

Bobby Feller of the Indians and Cliff Chambers of the Pittsburgh Pirates were the others to pitch no-hitters last year. Feller became the first of the moderns to turn the trick three times when he beat Detroit, 2–1, in Cleveland on July 1. The Tigers got their run on an error, a stolen base, a wild pick-off throw and a fly ball. Chambers, a left-hander, defeated the Braves, 3–0, in Boston on May 6. Chambers later figured in a trade with St. Louis and finished the season with the Cardinals.

BASEBALL'S HALL OF FAME

Cooperstown, N. Y.

Lifetime Records of Immortals

Year elected	Name and playing years	Games	Batting Average
1939	Anson, Adrian C., 1876–97	2253	.339
1945	Bresnahan, Roger, 1897–1915	1410	.279
1945	Brouthers, Dan, 1879–96	1653	.348
1946	Burkett, Jesse C., 1890–1905	2063	.342
1946	Chance, Frank L., 1898–1914	1232	.297
1945	Clarke, Fred C., 1894–1915	2204	.315
1936	Cobb, Tyrus R., 1905–28	3033	.367
1947	Cochrane, Gordon S., 1925–37	1482	.320
1939	Collins, Edward T., 1906–30	2826	.333
1945	Collins, James J., 1895–1908	1718	.294
1939	Comiskey, C. A., 1882–94	1383	.269
1945	Delahanty, E. J., 1888–1903	1825	.346
1945	Duffy, Hugh, 1888–1906	1722	.330
1946	Evers, John J., 1902–19	1776	.270
1939	Ewing, Wm. B., 1880–97	1280	.311
1951	Foxx, James E., 1925–1945	2317	.325
1947	Frisch, Frank F., 1919–37	2311	.316
1939	Gehrig, H. Louis, 1923–39	2164	.340
1949	Gehringer, Charles L., 1924–42	2323	.321
1942	Hornsby, Rogers, 1915–37	2259	.358
1945	Jennings, H. A., 1891–1903	1264	.314
1939	Keeler, Wm. H., 1892–1910	2124	.345
1945	Kelly, Michael J., 1878–93	1493	.315
1937	Lajoie, Napoleon, 1896–1916	2475	.338
1946	McCarthy, Thomas, 1884–96	1268	.294
1937	McGraw, John J., 1891–1906	1082	.334
1937	Mack, Connie, 1886–96	736	.249
1945	O'Rourke, James, 1876–94	1750	.315
1951	Ott, Melvin T., 1926–1947	2730	.304

Year elected	Name and playing years	Games	Batting Average
1945	Robinson, Wilbert, 1886–1902	1316	.230
1936	Ruth, G. H. (Babe), 1914–35	2503	.342
1937	Speaker, T. E., 1907–28	2789	.344
1939	Sisler, George H., 1915–30	2055	.340
1946	Tinker, Joseph B., 1902–16	1641	.264
1948	Traynor, Harold J., 1920–37	1941	.320
1936	Wagner, John P., 1897–1917	2785	.329
1937	Wright, George, 1876–82	315	.251

PITCHERS

Year elected	Name and playing years	Won	Lost
1938	Alexander, Grover C., 1911–30	373	208
1949	Brown, Mordecai, 1903–16	239	131
1946	Chesbro, John D., 1899–1909	199	128
1946	Griffith, Clark C., 1891–1908	237	140
1947	Grove, Robert M., 1925–41	300	141
1947	Hubbell, Carl O., 1928–43	253	154
1936	Johnson, Walter P., 1907–27	414	276
1946	McGinnity, Joseph J., 1899–1908	248	141
1936	Mathewson, Christopher, 1900–16	373	183
1949	Nichols, Charles A., 1890–1906	360	202
1948	Pennock, Herbert J., 1912–34	239	161
1946	Plank, Edward S., 1901–17	324	190
1939	Radbourne, Charles G., 1880–91	308	191
1946	Waddell, George E., 1897–1910	203	143
1946	Walsh, Edward A., 1904–17	195	126
1937	Young, Denton T., 1890–1911	511	315

SELECTED FOR MERITORIOUS SERVICE

Morgan G. Bulkeley (1937), Alexander J. Cartwright (1938), Henry Chadwick (1938), William A. Cummings (1933), B. Bancroft Johnson (1937), Judge Kenesaw M. Landis (1944), Albert G. Spalding (1939).

HONOR ROLLS
(All named in 1946)

EXECUTIVES—E. S. Barnard, Edward G. Barrow, John Bruce, John T. Brush, Barney Dreyfuss, Charles Ebbets, August Herrmann, John A. Heydler, J. A. (Bob) Quinn, Arthur H. Soden, Nicholas Young.

MANAGERS—William Carrigan, Edward Hanlon, Miller J. Huggins, Frank G. Selee, John M. Ward.

UMPIRES—Thomas Connelly, William Dinneen, Robert Emslie, William Evans, John Gaffney, Timothy Hurst, Honest John Kelly, William Klem, Thomas Lynch, Silk O'Loughlin, Jack Sheridan.

WRITERS—Walter Barnes, Harry E. Cross, William Hanna, Frank Hough, Sid Mercer, T. H. Murnane, Frank Richter, Cy Sanborn, John B. Sheridan, William Slocum, George Tidden, Joe Vila.

BABE RUTH'S MAJOR LEAGUE HOME-RUN RECORD

(A) American League; (N) National League

Regular Season

Year	Club	Home runs
1914	Boston (A)	0
1915	Boston (A)	4
1916	Boston (A)	3
1917	Boston (A)	2
1918	Boston (A)	11
1919	Boston (A)	29
1920	New York (A)	54
1921	New York (A)	59
1922	New York (A)	35
1923	New York (A)	41
1924	New York (A)	46
1925	New York (A)	25
1926	New York (A)	47
1927	New York (A)	60
1928	New York (A)	54
1929	New York (A)	46
1930	New York (A)	49
1931	New York (A)	46
1932	New York (A)	41
1933	New York (A)	34
1934	New York (A)	22
1935	Boston (N)	6
	Total	714

World Series

Year	Club	Home runs
1915	Boston (A)	0
1916	Boston (A)	0
1918	Boston (A)	0
1921	New York (A)	1
1922	New York (A)	0
1923	New York (A)	3
1926	New York (A)	4
1927	New York (A)	2
1928	New York (A)	3
1932	New York (A)	2
	Total	15

All-Star Game

Year	Club	Home runs
1933	American	1
1934	American	0
	Total	1
Grand total		730

Each member of the Cleveland Indians entitled to a full winning share in the 1948 world series with the Boston Braves received $6,772.05, the record for the classic.

Minor League Baseball

1951 Pennant Winners

Asterisk (*) indicates playoffs determine championship.

CLASS AAA

League and champion	Playoff winner
American Association—Milwaukee	Milwaukee
International—Montreal	Montreal
Pacific Coast—Seattle	Seattle

CLASS AA

Southern Association—Little Rock	Birmingham
Texas—Houston	Houston*

CLASS A

Central—Dayton (Ohio)	No playoffs
Eastern—Wilkes-Barre (Pa.)	Scranton (Pa.)
South Atlantic—Montgomery (Ala.)	Montgomery
Western—Omaha (Nebr.)	Sioux City (Iowa)

CLASS B

Big State—Gainesville (Texas)	Gainesville*
Carolina—Durham (N. C.)	Winston-Salem (N. C.)
Fla. International—Tampa	St. Petersburg*
Gulf Coast—Corpus Christi (Texas)	Brownsville
Inter-State—Hagerstown (Md.)	Wilmington (Del.)
Piedmont—Norfolk (Va.)	Norfolk
Three-I—Terre Haute (Ind.)	Quincy (Ill.)
Tri-State—Charlotte (N. C.)	Spartanburg (S. C.)
Western Int'l—Spokane (Wash.)	No playoffs

CLASS C

California—Santa Barbara	Santa Barbara
Canadian-American	Oneonta (1st half) Oneonta (2d half) — Onconta (N. Y.)
Cotton States—Monroe (La.)	Natchez (Miss.)
Evangeline—Thibedaux (La.)	Hammond (La.)
Longhorn—San Angelo (Texas)	Odessa*
Mid-Atlantic—Niagara Falls (2d)	Erie, Pa. (1st half) Niagara Falls
Northern—Eau Clair (Wis.)	Grand Forks (N. D.)
Pioneer—Salt Lake City	Great Falls (Mont.)
Provincial—Sherbrooke (Quebec)	Sherbrooke
Southwest Int'l—Mexicali (1st half) Phoenix (2d)	Mexicali (Mex.)
Western Association—Topeka (Kans.)	No playoffs
W. Texas-N. Mexico—Abilene (Texas)	Abilene

CLASS D

Alabama-Fla.—Headland (Ala.)	Dothan (Ala.)
Appalachian—Kingsport (Tenn.)	Kingsport
Coastal Plain—Kinston (N. C.)	New Bern (N. C.) Klamath Falls, Oreg.
Far West—(1st half)	Klamath Falls Redding, Calif. (2d half)
Florida State—DeLand	DeLand
Georgia-Ala.—Griffin, Ga. (1st half)	No playoffs† LaGrange, Ga. (2d half)
Georgia-Fla.—Valdosta (Ga.)	Waycross (Ga.)
Georgia State—Jesup	Douglas
Kansas-Okla.-Mo.—Ponca City (Okla.)	Carthage (Mo.)
Kitty—Fulton (Ky.)	Fulton
Miss.-Ohio—Paris, Ill. (1st half) Valley—Paris, Ill. (2d half)	Danville (Ill.)
Mountain States—Hazard (Ky.)	Hazard
No. Car. State—High Point-Thomasville	H. P.-Thom.
Ohio-Indiana—Newark, Ohio (1st half) Marion, Ohio (2d half)	Marion
Pony—Olean (N. Y.)	Hornell (N. Y.)
Sooner State—Ardmore (Okla.)	McAlester*
Virginia—Petersburg	Elizabeth City
West Carolina—Morganton (N. C.)	Shelby (N. C.)
Wisconsin State—Sheboygan	No playoffs

† LaGrange declared champion.

1951 JUNIOR WORLD SERIES

Milwaukee (AA) vs. Montreal (I)

*1st game—Montreal 6, Milwaukee 3
*2d game—Milwaukee 4, Montreal 3
*3d game—Montreal 5, Milwaukee 3†
4th game—Milwaukee 4, Montreal 2
5th game—Milwaukee 6, Montreal 0
6th game—Milwaukee 13, Montreal 10

* At Montreal. † Eleven innings.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Milwaukee Brewers	4	2	.667
Montreal Royals	2	4	.333

Final 1951 Standings

(Regular Season)

AMERICAN ASSOCIATION (AAA)

	W.	L.	Pct.		W.	L.	Pct.
Milwaukee	94	57	.623	Minneapolis	77	75	.507
St. Paul	85	66	.563	Toledo	70	82	.461
Kansas City	81	70	.536	Indianapolis	68	84	.447
Louisville	80	73	.523	Columbus	53	101	.344

INTERNATIONAL LEAGUE (AAA)

	W.	L.	Pct.		W.	L.	Pct.
Montreal	95	59	.617	Toronto	77	76	.503
Rochester	83	69	.546	Baltimore	69	82	.457
Syracuse	82	71	.536	Ottawa	62	88	.413
Buffalo	79	75	.513	Springfield	63	90	.412

PACIFIC COAST LEAGUE (AAA)

	W.	L.	Pct.		W.	L.	Pct.
Seattle	99	68	.593	Oakland	80	88	.476
Hollywood	93	74	.557	San Diego	79	88	.473
Los Angeles	86	81	.515	Sacramento	75	92	.449
Portland	83	85	.494	San Francisco	74	93	.443

SOUTHERN ASSOCIATION (AA)

	W.	L.	Pct.		W.	L.	Pct.
Little Rock	93	60	.608	Nashville	78	76	.506
Birmingham	83	71	.539	Atlanta	76	78	.494
Mobile	80	74	.519	New Orleans	64	90	.416
Memphis	79	75	.513	Chattanooga	62	91	.405

TEXAS LEAGUE (AA)

	W.	L.	Pct.		W.	L.	Pct.
Houston	99	61	.619	Fort Worth	84	78	519
San Antonio	86	75	.534	Okla. City	75	86	.466
Dallas	85	75	.531	Tulsa	67	94	.416
Beaumont	85	77	.525	Shreveport	63	98	.391

CENTRAL LEAGUE (A)

	W.	L.	Pct.		W.	L.	Pct.
Dayton	87	50	.635	Charleston	69	70	.496
Muskegon	86	54	.614	Grand Rapids	53	82	.393
Saginaw	79	58	.577	Flint	38	98	.279

EASTERN LEAGUE (A)

	W.	L.	Pct.		W.	L.	Pct.
Wilkes-Barre	85	54	.612	Schenectady	73	66	.525
Scranton	77	60	.562	Binghamton	69	69	.500
Elmira	74	64	.5362	Williamsport	55	84	.396
Hartford	75	65	.5357	Albany	46	92	.333

SOUTH ATLANTIC (SALLY) LEAGUE (A)

	W.	L.	Pct.		W.	L.	Pct.
Montgomery	85	55	.607	Columbus	68	71	.489
Jacksonville	79	58	.577	Savannah	64	74	.464
Macon	75	63	.543	Augusta	62	76	.449
Charleston	75	65	.536	Columbia	46	92	.333

WESTERN LEAGUE (A)

	W.	L.	Pct.		W.	L.	Pct.
Omaha	90	64	.584	Des Moines	73	78	.483
Denver	88	66	.571	Pueblo	74	80	.481
Wichita	84	68	.553	Colo. Springs	64	87	.424
Sioux City	77	71	.520	Lincoln	57	93	.380

1951 DIXIE SERIES

Birmingham (SA) vs. Houston (TL)

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Birmingham Barons	4	2	.667
Houston Buffs	2	4	.333

JUNIOR WORLD SERIES RECORD

International League (1) vs. American Association (AA)

No series in 1905, 1908 to 1916, inclusive; 1918, 1919 and 1935.

Year	Winner	Manager	Games won	Loser	Manager	Games won
1904	Buffalo (I)	George Stallings	2	St. Paul	Mike Kelley	1
1906*	Buffalo (I)	George Stallings	3	Columbus	Bill Clymer	2
1907	Toronto (I)	Joe Kelley	4	Columbus	Bill Clymer	1
1917	Indianapolis (AA)	Jack Hendricks	4	Toronto	Nap Lajoie	1
1920	Baltimore (I)	Jack Dunn	5	St. Paul	Mike Kelley	1
1921	Louisville (AA)	Joe McCarthy	5	Baltimore	Jack Dunn	3
1922	Baltimore (I)	Jack Dunn	5	St. Paul	Mike Kelly	2
1923	Kansas City (AA)	Wilbur Good	5	Baltimore	Jack Dunn	4
1924*	St. Paul (AA)	Nick Allen	5	Baltimore	Jack Dunn	4
1925	Baltimore (I)	Jack Dunn	5	Louisville	Joe McCarthy	3
1926	Toronto (I)	Dan Howley	5	Louisville	Bill Meyer	0
1927	Toledo (AA)	Casey Stengel	5	Buffalo	Bill Clymer	1
1928*	Indianapolis (AA)	Bruno Betzel	5	Rochester	Billy Southworth	1
1929	Kansas City (AA)	Dutch Zwilling	5	Rochester	Billy Southworth	4
1930	Rochester (I)	Billy Southworth	5	Louisville	Al Sothoron	3
1931	Rochester (I)	Billy Southworth	5	St. Paul	Al Leifield	3
1932	Newark (I)	Al Mamaux	4	Minneapolis	Donie Bush	2
1933	Columbus (AA)	Ray Blades	5	Buffalo	Ray Schalk	3
1934	Columbus (AA)	Ray Blades	5	Toronto	Ike Boone	4
1936	Milwaukee (AA)	Al Sothoron	4	Buffalo	Ray Schalk	1
1937	Newark (I)	Oscar Vitt	4	Columbus	Burt Shotton	3
1938	Kansas City (AA)	Bill Meyer	4	Newark	Johnny Neun	3
1939	Louisville (AA)	Bill Burwell	4	Rochester	Billy Southworth	3
1940	Newark (I)	Johnny Neun	4	Louisville	Bill Burwell	2
1941	Columbus (AA)	Burt Shotton	4	Montreal	Clyde Sukeforth	2
1942	Columbus (AA)	Eddie Dyer	4	Syracuse	Jewel Ens	1
1943	Columbus (AA)	Nick Cullop	4	Syracuse	Jewel Ens	1
1944	Baltimore (I)	Tommy Thomas	4	Louisville	Harry Leibold	2
1945	Louisville (AA)	Harry Leibold	4	Newark	Bill Meyer	2
1946	Montreal (I)	Clay Hopper	4	Louisville	Harry Leibold	2
1947	Milwaukee (AA)	Nick Cullop	4	Syracuse	Jewel Ens	3
1948	Montreal (I)	Clay Hopper	4	St. Paul	Walter E. Alston	1
1949	Indianapolis (AA)	Al Lopez	4	Montreal	Clay Hopper	2
1950	Columbus (AA)	Rollie Hemsley	4	Baltimore	Nick Cullop	1
1951	Milwaukee (AA)	Charlie Grimm	4	Montreal	Walter Alston	2

* Played tie game.

RUTH'S BASEBALL EARNINGS

Year	Club	Salary
1914	Baltimore (I)	$ 600
1914*	Boston (A)	1,300
1915	Boston (A)	3,500
1916	Boston (A)	3,500
1917	Boston (A)	5,000
1918	Boston (A)	7,000
1919	Boston (A)	10,000
1920	New York (A)	20,000
1921	New York (A)	30,000
1922	New York (A)	52,000
1923	New York (A)	52,000
1924	New York (A)	52,000
1925	New York (A)	52,000
1926	New York (A)	52,000
1927	New York (A)	70,000
1928	New York (A)	70,000
1929	New York (A)	70,000
1930	New York (A)	80,000
1931	New York (A)	80,000
1932	New York (A)	75,000
1933	New York (A)	50,000
1934	New York (A)	35,000
1935	Boston (N)	40,000
1938†	Brooklyn (N)	15,000
	Total	$925,900

* Bought by Boston Americans from Baltimore and farmed to Providence (I). † Coach.

Ruth's share from ten world series amounted to $41,445. In addition, he was reputed to have made $1,000,000 from endorsements, barnstorming tours, movies and radio appearances.

Winter Olympics at Oslo

The 1952 Olympic Winter Games will be held at Oslo, Norway, Feb. 14–25.

Joe DiMaggio participated in his 51st world series game in the 1951 classic to set a record in that respect. The previous record of 50 was held by Frankie Frisch. DiMaggio tied a mark formerly held outright by Babe Ruth when he played in his tenth world series. It was the ninth time the Yankee Clipper was on the winning side, a record he holds alone.

HORSESHOE PITCHING, 1951

World Title Tournaments

(At Salt Lake City, Utah)

FINAL STANDING OF THE LEADERS

	W.	L.		W.	L.
Fernando Isais	35	0	Ray Gatewood	23	12
Ted Allen	33	2	Dean Brown	23	12
Marines Tamboer	29	6	Louis Dean	23	12
Eddie Packham	25	10	Dale Dixon	22	13
John Lindmeier	25	10	Ellis Cobb	22	13
Casey Jones	23	12	Stan DeLeary	22	13

Mrs. Sarah Byers, Portland, Oreg., won the women's crown and David Loucks, San Francisco, the junior tournament.

A. A. U. Championships, 1951

(At Baltimore, Md., Sept. 1–3)

Singles—Jene Durham, Baltimore

Doubles—Albert Rumbold–Clarence Stem, Westminster, Md.

THE OLYMPIC GAMES

(W)—Site of Winter games. (S)—Site of Summer games.

1896—Athens
1900—Paris
1904—St. Louis
1906—Athens
1908—London
1912—Stockholm
1920—Antwerp
1924—Chamonix (W)
1924—Paris (S)
1928—St. Moritz (W)
1928—Amsterdam (S)
1932—Lake Placid (W)
1932—Los Angeles (S)
1936—Garmisch-Partenkirchen (W)
1936—Berlin (S)
1948—St. Moritz (W)
1948—London (S)
1952—Scheduled for Oslo (W) and Helsinki (S)

THE first Olympic Games of which there is record occurred in 776 B.C. and consisted of one event, a great foot race of about 200 yards held on a plain by the River Alpheus (now the Ruphia) just outside the little town of Olympia in Greece. It was from that date that the Greeks began to keep their calendar by "Olympiads," the four-year spans between the celebrations of the famous games. There was a religious as well as an athletic significance to the ancient games and the shrines, temples and sacred fires within the Olympic enclosure were the scenes of worship all through the year whereas the Olympic Games, at the height of their popularity, never lasted more than five days and were held only once every four years.

The competition was entirely amateur at the start and the only prizes were laurel wreaths. Only free Greek citizens were allowed to compete and they had to undergo a strict training course that lasted ten months. But civic rivalry led to trickery and professionalism and the games became degraded after some centuries. When Rome conquered Greece, the Roman emperors turned the Olympic Games from patriotic, religious and athletic festivals into carnivals and circuses. They dragged on malodorously until they were finally halted by decree of Emperor Theodosius I of Rome in A.D. 394.

The modern Olympic Games, which started in Athens in 1896, are the result of the devotion of a French educator, Baron Pierre de Coubertin, to the idea that, since boys and athletics have gone together down the ages, education and athletics might well go hand-in-hand toward a better international understanding. He planned a revival of the ancient Olympic Games on a world-wide basis and succeeded in getting nine nations to send athletes to the first of the modern games in 1896. Since then more than 29,000 athletes representing 58 nations have competed in the games.

Interrupted for the second time by war, the modern Olympic Games were resumed at London in 1948.

OLYMPIC GAMES CHAMPIONS, 1896–1948

Source: United States Olympic Association

TRACK AND FIELD—MEN

60-Meter Run

1900	A. E. Kraenzlein, United States	7s.
1904	Archie Hahn, United States	7s.

100-Meter Run

1896	T. E. Burke, United States	12s.
1900	F. W. Jarvis, United States	10.8s.
1904	Archie Hahn, United States	11s.
1906	Archie Hahn, United States	11.2s.
1908	R. E. Walker, South Africa	10.8s.
1912	R. C. Craig, United States	10.8s.
1920	C. W. Paddock, United States	10.8s.
1924	H. M. Abrahams, Great Britain	10.6s.
1928	Percy Williams, Canada	10.8s.
1932	Eddie Tolan, United States	10.3s.
1936	Jesse Owens, United States	10.3s.*
1948	Harrison Dillard, United States	10.3s.

* With the wind.

200-Meter Run

1900	J. W. B. Tewksbury, United States	22.2s.
1904	Archie Hahn, United States	21.6s.
1908	R. Kerr, Canada	22.4s.
1912	R. C. Craig, United States	21.7s.
1920	Allan Woodring, United States	22s.
1924	J. V. Scholz, United States	21.6s.
1928	Percy Williams, Canada	21.8s.
1932	Eddie Tolan, United States	21.2s.
1936	Jesse Owens, United States	20.7s.
1948	Melvin E. Patton, United States	21.1s.

400-Meter Run

1896	T. E. Burke, United States	54.2.
1900	M. W. Long, United States	49.4.
1904	H. L. Hillman, United States	49.2.
1906	Paul Pilgrim, United States	53.2.
1908	W. Halswelle, Great Britain (walkover)	50s.
1912	C. D. Reidpath, United States	48.2s.
1920	B. G. D. Rudd, South Africa	49.6s.
1924	E. H. Liddell, Great Britain	47.6s.
1928	Ray Barbuti, United States	47.8s.
1932	William Carr, United States	46.2s.
1936	Archie Williams, United States	46.5s.
1948	Arthur Wint, Jamaica, B.W.I.	46.2s.

800-Meter Run

1896	E. H. Flack Great Britain	2m.11s.
1900	A. E. Tysoe, Great Britain	2m.1.4s.
1904	J. D. Lightbody, United States	1m.56s.
1906	Paul Pilgrim, United States	2m.1.2s.
1908	M. W. Sheppard, United States	1m.52.8s.
1912	J. E. Meredith, United States	1m.51.9s.
1920	A. G. Hill, Great Britain	1m.53.4s.
1924	D. G. A. Lowe, Great Britain	1m.52.4s.
1928	D. G. A. Lowe, Great Britain	1m.51.8s.
1932	Thomas Hampson, Great Britain	1m.49.8s.
1936	John Woodruff, United States	1m.52.9s.
1948	Malvin Whitfield, United States	1m.49.2s.

1,500-Meter Run

1896	E. H. Flack, Great Britain	4m.33.2s
1900	C. Bennett, Great Britain	4m.6s.
1904	J. D. Lightbody, United States	4m.5.4s.
1906	J. D. Lightbody, United States	4m.12s.
1908	M. W. Sheppard, United States	4m.3.4s.
1912	A. N. S. Jackson, Great Britain	3m.56.8s.
1920	A. G. Hill, Great Britain	4m.1.8s.
1924	Paavo Nurmi, Finland	3m.53.6s.
1928	H. E. Larva, Finland	3m.53.2s.
1932	Luigi Beccali, Italy	3m.51.2s.
1936	J. E. Lovelock, New Zealand	3m.47.8s.
1948	Henri Eriksson, Sweden	3m.49.8s.

5,000-Meter Run

1912	H. Kolehmainen, Finland	14m.36.6s.
1920	J. Guillemot, France	14m.55.6s.
1924	Paavo Nurmi, Finland	14m.31.2s.
1928	Willie Ritola, Finland	14m.38s.
1932	Lauri Lehtinen, Finland	14m.30s.
1936	Gunnar Hockert, Finland	14m.22.2s.
1948	Gaston Reiff, Belgium	14m.17.6s.

5-Mile Run

1906	H. Hawtrey, Great Britain	26m.26.2s.
1908	E. R. Voigt, Great Britain	25m.11.2s.

10,000-Meter Run

1912	H. Kolehmainen, Finland	31m.20.8s.
1920	Paavo Nurmi, Finland	31m.45.8s.
1924	Willie Ritola, Finland	30m.23.2s.
1928	Paavo Nurmi, Finland	30m.18.8s.
1932	Janusz Kusocinski, Poland	30m.11.4s.
1936	Ilmari Salminen, Finland	30m.15.4s.
1948	Emil Zatopek, Czechoslovakia	29m.59.6s.

Marathon

1896	S. Loues, Greece	2h.55m.20s.
1900	Teato, France	2h.59m.
1904	T. J. Hicks, United States	3h.28m.53s.
1906	W. J. Sherring, Canada	2h.51m.23.6s.
1908	John J. Hayes, United States	2h.55m.18.4s.
1912	K. K. McArthur, South Africa	2h.32m.35.8s.
1920	H. Kolehmainen, Finland	2h.32m.35.8s.
1924	A. O. Stenroos, Finland	2h.41m.22.6s.
1928	El Ouafi, France	2h.32m.57s.
1932	Juan Zabala, Argentina	2h.31m.36s.
1936	Kitei Son, Japan	2h.29m.19.2s.
1948	Delfo Cabrera, Argentina	2h.34m.51.6s.

110-Meter Hurdles

1896	Curtis, United States	17.6s.
1900	A. E. Kraenzlein, United States	15.4s.
1904	F. W. Schule, United States	16s.
1906	R. G. Leavitt, United States	16.2s.
1908	Forrest Smithson, United States	15s.
1912	F. W. Kelly, United States	15.1s.
1920	E. J. Thomson, Canada	14.8s.
1924	D. C. Kinsey, United States	15s.
1928	S. Atkinson, South Africa	14.8s.
1932	George Saling, United States	14.6s.
1936	Forrest Towns, United States	14.2s.
1948	William Porter, United States	13.9s.

200-Meter Hurdles

1900	A. E. Kraenzlein, United States	25.4s.
1904	H. L. Hillman, United States	24.6s.

400-Meter Hurdles

1900	J. W. B. Tewksbury, United States	57.6s.
1904	H. L. Hillman, United States	53s.
1908	C. J. Bacon, United States	55s.
1920	F. F. Loomis, United States	54s.
1924	F. M. Taylor, United States	52 6s.
1928	Lord David Burghley, Great Britain	53.4s.
1932	Robert Tisdall, Ireland	51.8s.*
1936	Glenn Hardin, United States	52.4s.
1948	Roy Cochran, United States	51.1s.

* Record not allowed.

2,500-Meter Steeplechase

1900	G. W. Orton, United States	7m.34s.
1904	J. D. Lightbody, United States	7m.39.6s.

3,000-Meter Steeplechase

1920	P. Hodge, Great Britain	10m.2.4s.
1924	Willie Ritola, Finland	9m 33.6s.
1928	T. A. Loukola, Finland	9m 21.8s.
1932	Volmari Iso-Hollo, Finland	10m.33.4s.*
1936	Volmari Iso-Hollo, Finland	9m.3.8s.
1948	Thure Sjoestrand, Sweden	9m.4.6s.

* About 3,450 meters—extra lap by error.

3,200-Meter Steeplechase

1908	A. Russell, Great Britain	10m.47.8s.

4,000-Meter Steeplechase

1900	C. Rimmer, Great Britain	12m.58.4s.

3,000-Meter Team

1912	United States	9 pts.
1920	United States	10 pts.
1924	Finland	8 pts.

3-Mile Team

1908	Great Britain	6 pts.

8,000-Meter X-Country

1912	H. Kolehmainen, Finland	45m.11.6s.

8,000-Meter X-Country Team

1912	Sweden	

10,000-Meter X-Country

1920	Paavo Nurmi, Finland	27m.15s.
1924	Paavo Nurmi, Finland	32m.54.8s.

10,000-Meter X-Country Team

1912	Sweden	10 pts.
1920	Finland	10 pts.
1924	Finland	11 pts.

1,500-Meter Walk

1906	George V. Bonhag, United States	7m.12.6s.

3,000-Meter Walk

1906	G. Stantics, Hungary	
1920	Ugo Frigerio, Italy	13m.14.2s.

3,500-Meter Walk

1908	G. E. Larner, Great Britain	14m.55s.

10,000-Meter Walk

1912	G. H. Goulding, Canada	46m.28.4s
1920	Ugo Frigerio, Italy	48m.6.2s.
1924	Ugo Frigerio, Italy	47m.49s.
1948	John Mikaelsson, Sweden	45m.13.2s.

10-Mile Walk

1908	G. E. Larner, Great Britain	1h.15m.57.4s

50,000-Meter Walk

1932	Thomas W. Green, Great Britain	4h.50m.10s.
1936	Harold Whitlock, Great Britain	4h.30m.41.4s.
1948	John Ljunggren, Sweden	4h.41m.52s.

400-Meter Relay

1912	Great Britain	42.4s.
1920	United States	42.2s.
1924	United States	41s.
1928	United States	41s.
1932	United States	40s.
1936	United States	39.8s.
1948	United States	40.6s.

1,600-Meter Relay

1908	United States	3m.27.2s.
1912	United States	3m.16.6s.
1920	Great Britain	3m.22.2s.
1924	United States	3m.16s.
1928	United States	3m.14.2s.
1932	United States	3m.8.2s.
1936	Great Britain	3m.9s.
1948	United States	3m.10.4s.

Pole Vault

1896	W. W. Hoyt, United States	10 ft. 9¾ in.
1900	I. K. Baxter, United States	10 ft. 9.9 in.
1904	C. E. Dvorak, United States	11 ft. 6 in.
1906	Gonder, France	11 ft. 6 in.
1908	A. C. Gilbert, United States E. T. Cook, Jr., United States	12 ft. 2 in.
1912	H. J. Babcock, United States	12 ft. 11½ in
1920	F. K. Foss, United States	13 ft. 5 in.
1924	L. S. Barnes, United States	12 ft. 11½ in.
1928	Sabin W. Carr, United States	13 ft. 9⅜ in.
1932	William Miller, United States	14 ft. 1⅞ in.
1936	Earle Meadows, United States	14 ft. 3¼ in.
1948	Guinn Smith, United States	14 ft. 1¼ in.

Standing High Jump

1900	R. C. Ewry, United States	5 ft. 5 in.
1904	R. C. Ewry, United States	4 ft. 11 in.
1906	R. C. Ewry, United States	5 ft. 1⅝ in.
1908	R. C. Ewry, United States	5 ft. 2 in.
1912	Platt Adams, United States	5 ft. 4⅛ in.

Running High Jump

1896	E. H. Clark, United States	5 ft. 11¼ in.
1900	I. K. Baxter, United States	6 ft. 2⅝ in.
1904	S. S. Jones, United States	5 ft. 11 in.
1906	Con Leahy, Ireland	5 ft. 9⅞ in.
1908	H. F. Porter, United States	6 ft. 3 in.
1912	A. W. Richards, United States	6 ft. 4 in.
1920	R. W. Landon, United States	6 ft. 4¼ in.
1924	H. M. Osborn, United States	6 ft. 5 15/16 in.
1928	Robert W. King, United States	6 ft. 4⅜ in.
1932	Duncan McNaughton, Canada	6 ft. 5⅜ in.
1936	Cornelius Johnson, United States	6 ft. 7 15/16 in.
1948	John Winter, Australia	6 ft. 6 in.

Standing Broad Jump

1900	R. C. Ewry, United States	10 ft. 6⅜ in
1904	R. C. Ewry, United States	11 ft. 4⅞ in.
1906	R. C. Ewry, United States	10 ft. 10 in.
1908	R. C. Ewry, United States	10 ft. 11¼ in.
1912	C. Tsicilitiras, Greece	11 ft. ¼ in.

Running Broad Jump

1896	E. H. Clark, United States	20 ft. 9¾ in.
1900	A. E. Kraenzlein, United States	23 ft. 6⅞ in.
1904	Myer Prinstein, United States	24 ft. 1 in.
1906	Myer Prinstein, United States	23 ft. 7½ in.
1908	Frank Irons, United States	24 ft. 6½ in.
1912	A. L. Gutterson, United States	24 ft. 11¼ in.
1920	Wm. Pettersson, Sweden	23 ft. 5½ in.
1924	DeHart Hubbard, United States	24 ft. 5⅛ in.
1928	Edward B. Hamm, United States	25 ft. 4¾ in.
1932	Edward Gordon, United States	25 ft. ¾ in.
1936	Jesse Owens, United States	26 ft. 5 5/16 in.
1948	Willie Steele, United States	25 ft. 8 in.

Standing Hop, Step, and Jump

1900	R. C. Ewry, United States	34 ft. 8½ in.
1904	R. C. Ewry, United States	34 ft. 7¼ in.

Running Hop, Step, and Jump

1896	J. B. Connolly, United States	45 ft.
1900	Myer Prinstein, United States	47 ft. 4¼ in.
1904	Myer Prinstein, United States	47 ft.
1906	P. O'Connor, Ireland	46 ft. 2 in.
1908	T. J. Ahearne, Great Britain	48 ft. 11¼ in.
1912	G. Lindblom, Sweden	48 ft. 5½ in.
1920	V. Tuulos, Finland	47 ft. 6⅞ in.
1924	A. W. Winter, Australia	50 ft. 11⅛ in.
1928	Mikio Oda, Japan	49 ft. 10 13/16 in.
1932	Chuhei Nambu, Japan	51 ft. 7 in.
1936	Naoto Tajima, Japan	52 ft. 5⅞ in.
1348	Arne Ahman, Sweden	50 ft. 6¼ in.

16-Lb. Shot-put

1896	R. S. Garrett, United States	36 ft. 2 in.
1900	R. Sheldon, United States	46 ft. 3⅛ in.
1904	Ralph Rose, United States	48 ft. 7 in.
1906	M. J. Sheridan, United States	40 ft. 4½ in.
1908	Ralph Rose, United States	46 ft. 7½ in.
1912	P. J. McDonald, United States	50 ft. 4 in.
1920	V. Porhola, Finland	48 ft. 7⅛ in.
1924	Clarence Houser, United States	49 ft. 2½ in.
1928	John Kuck, United States	52 ft. 1⅛ in.
1932	Leo Sexton, United States	52 ft. 6 3/16 in.
1936	Hans Woellke, Germany	53 ft. 1¾ in.
1948	Wilbur Thompson, United States	56 ft. 2 in.

16-Lb. Shot-put (Both Hands)

1912	Ralph Rose, United States	90 ft. 5⅜ in.

16-Lb. Hammer Throw

1900	J. J. Flanagan, United States	167 ft. 4 in.
1904	J. J. Flanagan, United States	168 ft. 1 in.
1908	J. J. Flanagan, United States	170 ft. 4¼ in.
1912	M. J. McGrath, United States	177 ft. 7 in.
1920	P. J. Ryan, United States	173 ft. 5⅝ in.
1924	F. D. Tootell, United States	174 ft. 10¼ in.
1928	Patrick O'Callaghan, Ireland	168 ft. 7½ in.
1932	Patrick O'Callaghan, Ireland	176 ft. 11⅛ in.
1936	Karl Hein, Germany	185 ft. 4 in.
1948	Irmy Nemeth, Hungary	183 ft. 11½ in.

56-Lb. Weight Throw

1904	E. Desmarteau, Canada	34 ft. 4 in.
1920	P. J. McDonald, United States	36 ft. 11⅝ in.

Discus Throw

1896	R. S. Garrett, United States	95 ft. 7½ in.
1900	R. Bauer, Hungary	118 ft. 2.9 in.
1904	M. J. Sheridan, United States	128 ft. 10½ in.
1906	M. J. Sheridan, United States	136 ft. ⅛ in.
1908	M. J. Sheridan, United States	134 ft. 2 in.
1912	A. R. Taipale, Finland	148 ft. 3.9 in.
1920	E. Niklander, Finland	146 ft. 7 in.
1924	Clarence Houser, United States	151 ft. 5¼ in.
1928	Clarence Houser, United States	155 ft. 2⅝ in.
1932	John Anderson, United States	162 ft. 4⅞ in.
1936	Ken Carpenter, United States	165 ft. 7⅜ in.
1948	Adolfo Consolini, Italy	173 ft. 2 in.

Discus Throw—Greek Style

1906	W. Jaervinen, Finland	115 ft. 4 in.
1908	M. J. Sheridan, United States	124 ft. 8 in.

Discus Throw (Right and Left Hand)

1912 A. R. Taipale, Finland ..... 271 ft. 10⅛ in.

Javelin Throw

1906 E. Lemming, Sweden ..... 175 ft. 6 in.
1908 E. Lemming, Sweden ..... 179 ft. 10½ in.
1912 E. Lemming, Sweden ..... 198 ft. 11¼ in.
1920 Jonni Myyra, Finland ..... 215 ft. 9¾ in.
1924 Jonni Myyra, Finland ..... 206 ft. 6¾ in.
1928 E. H. Lundquist, Sweden ..... 218 ft. 6— in.
1932 Matti Jarvinen, Finland ..... 238 ft. 7 in.
1936 Gerhard Stoeck, Germany ..... 235 ft. 8 5/16 in.
1948 Kaj Rautavaara, Finland ..... 228 ft. 10½ in.

Javelin Throw—Free Style

1908 E. Lemming, Sweden ..... 178 ft. 7½ in.

Javelin Throw (Both Hands)

1912 J. J. Saaristo, Finland ..... 358 ft. 11½ in.

Pentathlon

1906 H. Mellander, Sweden ..... 24 pts.
1912 F. R. Bie, Norway ..... 21 pts.
1920 E. R. Lehtonen, Finland ..... 14 pts.
1924 E. R. Lehtonen, Finland ..... 16 pts.

Decathlon

1912 H. Wieslander, Sweden ..... 7,724.495 pts.
1920 H. Lovland, Norway ..... 6,804.35 pts.
1924 H. M. Osborn, United States ..... 7,710.775 pts.
1928 Paavo Yrjola, Finland ..... 8,053.29 pts.
1932 James Bausch, United States ..... 8,462.23 pts.
1936 Glenn Morris, United States ..... 7,900 pts.
1948 Robert B. Mathias, United States ..... 7,139 pts.

(Old point system used from 1912 to 1932; new point system started in 1936.)

TRACK AND FIELD—WOMEN

100-Meter Run

1928 Elizabeth Robinson, United States ..... 12.2s.
1932 Stanislawa Walasiewicz, Poland ..... 11.9s.
1936 Helen Stephens, United States ..... 11.5s.
1948 Fanny Blankers-Koen, Holland ..... 11.9s.

200-Meter Run

1948 Fanny Blankers-Koen, Holland ..... 24.4s.

800-Meter Run

1928 Lina Radke, Germany ..... 2m.16.8s.

80-Meter Hurdles

1932 Mildred Didrikson, United States ..... 11.7s.
1936 Trebisonda Valla, Italy ..... 11.7s.
1948 Fanny Blankers-Koen, Holland ..... 11.2s.

400-Meter Relay

1928 Canada ..... 48.4s.
1932 United States ..... 47s.
1936 United States ..... 46.9s.
1948 Holland ..... 47.5s.

Running High Jump

1928 Ethel Catherwood, Canada ..... 5 ft. 3 in.
1932 Jean Shiley, United States ..... 5 ft. 5¼ in.
1936 Ibolya Csak, Hungary ..... 5 ft. 3 in.
1948 Alice Coachman, United States ..... 5 ft. 6⅛ in.

Running Broad Jump

1948 V. O. Gyarmati, Hungary ..... 18 ft. 8¼ in.

Discus Throw

1928 H. Konopacka, Poland ..... 129 ft. 11⅞ in.
1932 Lillian Copeland, United States ..... 133 ft. 2 in.
1936 Gisela Mauermayer, Germany ..... 156 ft. 3 5/16 in.
1948 Micheline Ostermeyer, France ..... 137 ft. 6½ in.

Javelin Throw

1932 Mildred Didrikson, United States ..... 143 ft. 4 in.
1936 Tilly Fleischer, Germany ..... 148 ft. 2¾ in.
1948 H. Bauma, Austria ..... 149 ft. 6 in.

Shot-put

1948 Micheline Ostermeyer, France ..... 45 ft. 1½ in.

SWIMMING—MEN

50 Yards

1904 Zoltan de Halomay, Hungary ..... 28s.

100 Meters

1896 Alfred Hajos, Hungary ..... 1m.22.2s.
1904 Zoltan de Halomay, Hungary ..... 1m.2.8s.*
1906 C. M. Daniels, United States ..... 1m.13s.
1908 C. M. Daniels, United States ..... 1m.5.6s.
1912 Duke P. Kahanamoku, United States ..... 1m.3.4s.
1920 Duke P. Kahanamoku, United States ..... 1m.1.4s.
1924 John Weissmuller, United States ..... 59s.
1928 John Weissmuller, United States ..... 58.6s.
1932 Yasuji Miyazaki, Japan ..... 58.2s.
1936 Ferenc Csik, Hungary ..... 57.6s.
1948 Walter Ris, United States ..... 57.3s.

* 100 yards.

220 Yards

1900 F. C. V. Lane, Australia
1904 C. M. Daniels, United States ..... 2m.44.2s.

400 Meters

1904 C. M. Daniels, United States ..... 6m.16.2s.*
1906 Otto Sheff, Austria ..... 6m.23.8s.
1908 H. Taylor, Great Britain ..... 5m.36.8s.
1912 G. R. Hodgson, Canada ..... 5m.24.4s.
1920 N. Ross, United States ..... 5m.26.8s.
1924 John Weissmuller, United States ..... 5m.4.2s.
1928 Albert Zorilla, Argentina ..... 5m.1.6s.
1932 Clarence Crabbe, United States ..... 4m.48.4s.
1936 Jack Medica, United States ..... 4m.44.5s.
1948 William Smith, United States ..... 4m.41s.

* 440 yards.

500 Meters

1896 Paul Neumann, Austria

880 Yards

1904 Emil Rausch, Germany ..... 13m.11.4s.

1,000 Meters

1900 Jarvis, Great Britain

1,200 Meters

1896 Alfred Hajos, Hungary

1,500 Meters

1908 H. Taylor, Great Britain ..... 22m.48.4s.
1912 G. R. Hodgson, Canada ..... 22m.
1920 N. Ross, United States ..... 22m.23.2s.
1924 A. M. Charlton, Australia ..... 20m.6.6s.
1928 Arne Borg, Sweden ..... 19m.51.8s.
1932 Kusuo Kitamura, Japan ..... 19m.12.4s.
1936 Noboru Terada, Japan ..... 19m.13.7s.
1948 James McLane, United States 19m.18.5s

1,600 Meters

1906 H. Taylor, Great Britain ..... 28m.28s.

One Mile

1904 Emil Rausch, Germany ..... 27m.18.2s.

Plunge for Distance

1904 W. E. Dickey, United States ..... 62 ft. 6 in

800-Meter Relay

1908	Great Britain	10m.55.6s.
1912	Australia	10m.11.6s.
1920	United States	10m.4.4s.
1924	United States	9m.53.4s.
1928	United States	9m.36.2s.
1932	Japan	8m.58.4s.
1936	Japan	8m.51.5s.
1948	United States	8m.46s.

100-Meter Backstroke

1904	Walter Brack, Germany	1m.16.8s.*
1908	Arno Bieberstein, Germany	1m.24.6s.
1912	Harry Hebner, United States	1m.21.2s.
1920	Warren Kealoha, United States	1m.15.2s.
1924	Warren Kealoha, United States	1m.13.2s.
1928	George Kojac, United States	1m.8.2s.
1932	Masaji Kiyokawa, Japan	1m.8.6s.
1936	Adolph Kiefer, United States	1m.5.9s.
1948	Allen Stack, United States	1m.6.4s.

*100 yards.

200-Meter Breast Stroke

1908	F. Holman, Great Britain	3m.9.2s.
1912	Walter Bathe, Germany	3m.1.8s.
1920	H. Malmroth, Sweden	3m.4.4s.
1924	R. D. Skelton, United States	2m.56.6s.
1928	Y. Tsuruta, Japan	2m.48.8s.
1932	Yoshiyuki Tsuruta, Japan	2m.45.4s.
1936	Tetsuo Hamuro, Japan	2m.42.5s.
1948	Joseph Verdeur, United States	2m.39.3s.

400-Meter Breast Stroke

1904	Georg Zacharias, Germany	7m.23.6s.
1920	H. Malmroth, Sweden	6m.31.8s.

1,000-Meter Team Race

1906	Hungary	17m.16.2s.

Springboard Diving

		Points
1904	G. E. Sheldon, United States	12 2-3
1906	Gottlob Walz, Germany	
1908	Albert Zuerner, Germany	85.5
1912	Paul Guenther, Germany	6
1920	L. E. Kuehn, United States	6
1924	A. C. White, United States	7
1928	P. Desjardins, United States	185.04
1932	Michael Galitzen, United States	161.38
1936	Richard Degener, United States	163.57
1948	Bruce Harlan, United States	163.64

Fancy High Diving

		Points
1912	Eric Adlerz, Sweden	7
1920	C. E. Pinkston, United States	7
1924	A. C. White, United States	9

Plain High Diving

		Points
1908	H. Johanssen, Sweden	83.70
1912	Erik Adlerz, Sweden	7
1920	Arvid Wallman, Sweden	7
1924	Richard Eve, Australia	13½

Plain and Fancy High Diving

		Points
1928	P. Desjardins, United States	98.74
1932	Harold Smith, United States	124.80
1936	Marshall Wayne, United States	113.58
1948	Samuel Lee, United States	130.05

WATER POLO

1900	Great Britain
1904	United States
1908	Great Britain defeated Belgium
1912	Great Britain defeated Austria
1920	Great Britain defeated Belgium
1924	France defeated Belgium
1928	Germany defeated Hungary
1932	Hungary defeated Germany
1936	Hungary
1948	Italy

SWIMMING—WOMEN

100 Meters

1920	Ethelda Bleibtrey, United States	1m.13.6s.
1922	Fanny Durack, Australia	1m.22.2s.
1924	Ethel Lackie, United States	1m.12.4s.
1928	Albina Osipowich, United States	1m.11s.
1932	Helene Madison, United States	1m.6.8s.
1936	Hendrika Mastenbroek, Holland	1m.5.9s.
1948	Greta Andersen, Denmark	1m.6.3s.

300 Meters

1920	Ethelda Bleibtrey, United States	4m.34s.

400 Meters

1924	Martha Norelius, United States	6m.2.2s.
1928	Martha Norelius, United States	5m.42.8s.
1932	Helene Madison, United States	5m.28.5s.
1936	Hendrika Mastenbroek, Holland	5m.26.4s.
1948	Ann Curtis, United States	5m.17.8s.

400-Meter Relay

1912	Great Britain	5m.52.8s.
1920	United States	5m.11.6s.
1924	United States	4m.58.8s.
1928	United States	4m.47.6s.
1932	United States	4m.38s.
1936	Holland	4m.36s.
1948	United States	4m.29.2s.

100-Meter Backstroke

1924	Sybil Bauer, United States	1m.23.2s.
1928	Marie Braun, Holland	1m.22s.
1932	Eleanor Holm, United States	1m.19.4s.
1936	Dina Senff, Holland	1m.18.9s.
1948	Karen Harup, Denmark	1m.14.4s.

200-Meter Breast Stroke

1924	Lucy Morton, Great Britain	3m.33.2s.
1928	Hilde Schrader, Germany	3m.12.6s.
1932	Clare Dennis, Australia	3m.6.3s.
1936	Hideko Maehata, Japan	3m.3.6s.
1948	Nel van Vliet, Netherlands	2m.57.2s.

Plain High Diving

		Points
1912	Greta Johansson, Sweden	39.9
1920	Miss Fryland, Denmark	6
1924	Caroline Smith, United States	9

Fancy Springboard Diving

		Points
1920	Aileen Riggin, United States	9
1924	Elizabeth Becker, United States	8
1928	Helen Meany, United States	78 62
1932	Georgia Coleman, United States	87.52
1936	Marjorie Gestring, United States	89.27
1948	Victoria M. Draves, United States	108.74

Plain and Fancy High Diving

		Points
1928	Elizabeth B. Pinkston, United States	31.60
1932	Dorothy Poynton, United States	40.26
1936	Mrs. Dorothy Poynton Hill, United States	33.93
1948	Victoria M. Draves, United States	68.87

POLO

1900	Great Britain	1924	Argentina
1908	Great Britain	1936	Argentina
1920	Great Britain		

BOXING

Flyweight

1904 George V. Finnegan, United States (105-lb. class)
1920 Frank Genaro, United States
1924 Fidel La Barba, United States
1928 Anton Kocsis, Hungary
1932 Stephen Enekes, Hungary
1936 Willi Kaiser, Germany
1948 Pascuel Perez, Argentina

Bantamweight

1904 O. L. Kirk, United States (115-lb. class)
1908 H. Thomas, Great Britain
1920 Walker, South Africa
1924 W. H. Smith, South Africa
1928 Vittorio Tamagnini, Italy
1932 Horace Gwynne, Canada
1936 Ulderico Sergo, Italy
1948 Tibor Csik, Hungary

Featherweight

1904 O. L. Kirk, United States
1908 R. K. Gunn, Great Britain
1920 Fritsch, France
1924 John Fields, United States
1928 L. Van Klaveren, Holland
1932 Carmelo Ambrosio Robledo, Argentina
1936 Oscar Casanovas, Argentina
1948 Ernesto Formenti, Italy

Lightweight

1904 H. J. Spanger, United States
1908 F. Grace, Great Britain
1920 Samuel Mosberg, United States
1924 Harold Nielsen, Denmark
1928 Carlo Orlandi, Italy
1932 Lawrence Stevens, South Africa
1936 Imre Harangi, Hungary
1948 Gerry Dreyer, South Africa

Welterweight

1904 Al Young, United States
1920 Schneider, Canada
1924 J. S. Delarge, Belgium
1928 Edward Morgan, New Zealand
1932 Edward Flynn, United States
1936 Sten Suvio, Finland
1948 Julius Torma, Czechoslovakia

Middleweight

1904 Charles Mayer, United States
1908 J. W. H. T. Douglas, Great Britain
1920 H. W. Mallin, Great Britain
1924 H. W. Mallin, Great Britain
1928 Piero Toscani, Italy
1932 Carmen Barth, United States
1936 Jean Despeaux, France
1948 Laszlo Papp, Hungary

Light Heavyweight

1920 Edward Eagan, United States
1924 H. J. Mitchell, Great Britain
1928 Victoria Avendano, Argentina
1932 David E. Carstens, South Africa
1936 Roger Michelot, France
1948 George Hunter, South Africa

Heavyweight

1904 Sam Berger, United States
1908 A. L. Oldham, Great Britain
1920 Rawson, Great Britain
1924 Otto Von Porath, Norway
1928 A. Rodriguez Jurado, Argentina
1932 Santiago A. Lovell, Argentina
1936 Herbert Runge, Germany
1948 Rafael Iglesias, Argentina

WRESTLING

CATCH-AS-CATCH-CAN

Flyweight

1904 R. Curry, United States (105-lb. class)
1948 V. L. Viitala, Finland

Bantamweight

1904 George N. Mehnert, U. S. (115-lb. class)
1908 George N. Mehnert, U. S. (119-lb. class)
1924 Kustaa Pihalajamaki, Finland
1928 K. Makinen, Finland
1932 Robert Edward Pearce, United States
1936 Odon Zombory, Hungary
1948 Nassuh Akar, Turkey

Featherweight

1896 Karl Schumann, Germany
1904 I. Niflot, United States
1908 G. S. Dole, United States
1920 Charles E. Ackerly, United States
1924 Robin Reed, United States
1928 Allie Morrison, United States
1932 Herman Pihlajamaki, Finland
1936 Kustaa Pihlajamaki, Finland
1948 Gazanfer Bilge, Turkey

Lightweight

1904 B. J. Bradshaw, United States
1908 G. de Relwyskow, Great Britain
1920 Kalle Antilla, Finland
1924 Russell Vis, United States
1928 O. Kapp, Esthonia
1932 Charles Pacome, France
1936 Karoly Karpati, Hungary
1948 Celal Atik, Turkey

Welterweight

1904 O. F. Roehm, United States
1924 Hermann Gehri, Switzerland
1928 A. J. Haavisto, Finland
1932 Jack F. Van Bebber, United States
1936 Frank Lewis, United States
1948 Yasar Dogu, Turkey

Middleweight

1904 Charles Erickson, United States
1908 S. V. Bacon, Great Britain
1920 E. Leino, Finland
1924 Fritz Haggmann, Switzerland
1928 E. Kyburg, Switzerland
1932 Ivar Johansson, Sweden
1936 Emile Poilve, France
1948 Glenn Brand, United States

Light Heavyweight

1920 Anders Larsson, Sweden
1924 John Spellman, United States
1928 T. S. Sjostedt, Sweden
1932 Peter Joseph Mehringer, United States
1936 Knut Fridell, Sweden
1948 Henry Wittenberg, United States

Heavyweight

1904 B. Hansen, United States
1908 G. C. O'Kelly, Great Britain
1920 Roth, Switzerland
1924 Harry Steele, United States
1928 Johan C. Richthoff, Sweden
1932 Johan C. Richthoff, Sweden
1936 Kristjan Palusalu, Estonia
1948 George Bobis, Hungary

BASKETBALL

1904 United States 1936 United States
1948 [illegible]ed States

ROWING

Eight-Oared Shell

1900 United States..... 6m.7⅘s.
1904 United States
1908 Great Britain
1912 Great Britain..... 6m.15s.
1920 United States..... 6m.2⅘s.
1924 United States..... 6m.33⅗s.
1928 United States..... 6m.3⅕s.
1932 United States..... 6m.37⅗s.
1936 United States..... 6m.25.4s.
1948 United States..... 5m.56.7s.

Single Sculls

1900 Barrelet, Belgium..... 7m.35⅗s.
1904 Frank B. Greer, United States
1908 H. T. Blackstaffe, Great Britain
1912 W. D. Kinear, Great Britain..... 7m.47⅗s.
1920 J. B. Kelly, United States..... 7m.35s.
1924 Jack Beresford, Jr., Great Britain..... 7m.49—s.
1928 Henry Robert Pearce, Australia..... 7m.11s.
1932 Henry Robert Pearce, Australia..... 7m.44⅗s.
1936 Gustav Schaffer, Germany..... 8m.21.5s.
1948 Mervyn Wood, Australia..... 7m.24.4s.

Double Sculls

1904 United States
1908 J. R. K. Fenning and G. L. Thomson, Great Britain
1920 J. B. Kelly and Paul V. Costello, United States..... 7m.9s.
1924 J. B. Kelly and Paul V. Costello, United States..... 6m.34s.
1928 Paul V. Costello and Charles J. McIlvaine, United States..... 6m.41⅗s.
1932 Kenneth Myers and W. E. Garrett Gilmore, United States..... 7m.17⅗s.
1936 Jack Beresford and Leslie Southwood, Great Britain..... 7m.20.8s.
1948 B. H. Bushnell and R. D. Burnell, Great Britain..... 6m.51.3s.

Four-Oared Shell with Coxswain

1900 Germany
1906 Italy
1912 Germany..... 6m.59⅗s.
1920 Switzerland..... 6m.54s.
1924 Switzerland..... 7m.18⅗s.
1928 Italy..... 6m.47⅘s.
1932 Germany..... 7m.19⅕s.
1936 Germany..... 7m.16.2s.
1948 United States..... 6m.50.3s.

Four-Oared Shell without Coxswain

1904 United States
1908 Great Britain
1924 Great Britain
1928 Great Britain..... 6m.36s.
1932 Great Britain..... 6m.58⅕s.
1936 Germany..... 7m.1.8s.
1948 Italy..... 6m.39s.

Pair-Oared Shell with Coxswain

1900 R. Klein and F. A. Brandt, Holland..... 7m.34⅕s.
1906 Italy (1,600 Meters)
1906 Italy (1,000 Meters)
1920 M. Olgeni and G. Scatturin, Italy..... 7m.56s.
1924 M. Candeveau and A. Felber, Switzerland.. 8m.39s.
1928 H. W. Schochlin and C. F. Schochlin, Switzerland..... 7m.42⅗s.
1932 Joseph A. Schauers and Charles M. Kieffer, United States..... 8m.25⅘s.
1936 Gerhard Gustmann and Herbert Adamski, Germany..... 8m.36.9s.
1948 F. Pedersen and T. Henriksen, Denmark... 8m.0.5s.

Pair-Oared Shell without Coxswain

1904 United States..... 10m.57s.
1908 J. Fenning and G. Thomson, Great Britain.. 9m.41s.
1924 W. H. Rosingh and A. C. Beynen, Holland.. 8m.19⅗s.
1928 K. Moeschter and B. Muller, Germany..... 7m.6⅗s.
1932 Lewis Clive and H. R. Arthur Edwards, Great Britain..... 8m.
1936 Willi Eichhorn and Hugo Strauss. Germany. 8m.16.1s.
1948 J. H. T. Wilson and W. G. R. M. Laurie, Great Britain..... 7m.21.1s.

1952 OLYMPIC SUMMER PROGRAM

(At Helsinki, Finland, July 19–Aug. 3)

Opening ceremony—July 19
Art exhibitions—July 16–Aug. 3
Basketball—July 25–Aug. 2
Boxing—July 28–Aug. 2
Canoeing—July 27–28
Cycling—July 28–Aug. 2
Demonstrations—July 30–31
Equestrian—July 28–Aug. 3
Fencing—July 21–Aug. 1
Field hockey—July 20–24
Gymnastics—July 20–24
*Modern pentathlon—July 21–25
Rowing—July 20–23
Shooting—July 25–29
Soccer football—July 19–Aug. 2
Swimming and water polo—July 25–Aug. 2
Track and field—July 20–27
Weight lifting—July 25–27
Wrestling—July 20–27
Yachting—July 20–28
Closing ceremony—Aug. 3

* Will be staged at Hameenlinna, sixty miles north of Helsinki.

TRACK AND FIELD

RUNNING, jumping, hurdling and throwing weights—track and field sports, in other words—are as natural to boys and young men as eating, drinking and breathing. Unorganized competition in this form of sport goes back beyond the Cave Man era. Organized competition begins with the first recorded Olympic Games in Greece, 776 B. C., when Coroebus of Elis won the only event on the program, a race of approximately 200 yards. The Olympic Games, with an ever-widening program of events, continued until "the glory that was Greece" had faded and "the grandeur that was Rome" was tarnished, and finally were abolished by decree of Emperor Theodosius I of Rome in A. D. 394. The Tailteann Games of Ireland are supposed to have antedated the first Olympic Games by some centuries, but we have no records of the specific events and winners thereof.

Professional contests of speed and strength were popular at all times and in many lands, but the widespread competition of amateur athletes in track and field sports is a comparatively modern development. The first organized amateur athletic meet of record was sponsored by the Royal Military Academy at Woolwich, England, in 1849. Oxford and Cambridge track and field rivalry began in 1864 and the English amateur championships were established in 1866. In the United States such organizations as the New York Athletic Club and the Olympic Club of San Francisco conducted track and field meets in the 1870's, and a few colleges joined to sponsor a meet in 1874. The success of the college meet led to the formation of the Intercollegiate Association of Amateur Athletes of America and the holding of an annual set of championship games beginning in 1876.

Many athletic clubs joined the National Association of Amateur Athletes of America, formed in 1879, but dissension broke up this organization and the Amateur Athletic Union, organized in 1888, has been the ruling body in American amateur athletics since that time.

Track and Field Statistics

Source: Official A.A.U. Track and Field Rules and Records Book. Reprinted by courtesy of the publishers, the Amateur Athletic Union of the United States, 233 Broadway, New York, N. Y.

MEN'S WORLD RECORDS

Recognized by the International Amateur Athletic Federation, July 22, 1951

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.	9.3 s.	Melvin E. Patton	United States	Fresno, Calif.	May 15, 1948
220 yd.	20. 2 s.	Melvin E. Patton	United States	Los Angeles	May 7, 1949
440 yd.	46 s.	Herbert McKenley	Jamaica, B.W.I.	Berkeley, Calif.	June 5, 1948
880 yd.	1 m. 49.2 s.	Sydney C. Wooderson	Gt. Britain	London	Aug. 20, 1938
		Malvin Whitfield	United States	Berea, Ohio	Aug. 19, 1950
1 mi.	4 m. 01.4 s.	Gunder Hagg	Sweden	Malmo, Sweden	July 17, 1945
2 mi.	8 m. 42.8 s.	Gunder Hagg	Sweden	Stockholm	Aug. 4, 1941
3 mi.	13 m. 32.4 s.	Gunder Hagg	Sweden	Gothenburg	Sept. 23, 1942
6 mi.	28 m. 30.8 s.	Viljo Heino	Finland	Kouvola, Finland	Sept. 1, 1949
10 mi.	49 m. 22.2 s.	Viljo Heino	Finland	Helsinki	Sept. 14, 1946
15 mi.	1 h. 17.28.6 s.	Mikko Hietanen	Finland	Gamlakarleby, Finland	May 23, 1948
1 hr.	12 mi. 29 yd.	Viljo Heino	Finland	Turku, Finland	Sept. 30, 1945

WALKING

Event	Record	Holder	Home country	Where made	Date
2 mi.	12 m. 45 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5 mi.	35 m. 33 s.	Harold G. Churcher	Gt. Britain	London	June 16, 1949
7 mi.	48 m. 15.2 s.	Werner Hardmo	Sweden	Kumla, Sweden	Sept. 9, 1945
10 mi.	1 h. 10 m. 55.8 s.	John Mikaelsson	Sweden	Stockholm	Aug. 23, 1945
20 mi.	2 h. 41 m. 7 s.	H. Olsson	Sweden	Boras, Sweden	Aug. 15, 1943
30 mi.	4 h. 24 m. 54.2 s.	F. Cornet	France	Paris	Oct. 11, 1942
1 hr.	8 mi. 1025 yd.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	15 mi. 1521 yd.	Olle Anderson	Sweden	Stockholm	Sept. 15, 1945

RUNNING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
100 m.	10.2 s.	Jesse Owens	United States	Chicago	June 20, 1936
		Harold Davis	United States	Compton, Calif.	June 6, 1941
		Lloyd LaBeach	Panamá	Fresno, Calif.	May 15, 1948
		N. H. Ewell	United States	Evanston, Ill.	July 9, 1948
200 m.	20.2 s.	Melvin E. Patton	United States	Los Angeles	May 7, 1949
400 m.	45.8 s.	George Rhoden	United States	Eskilstuna, Sweden	Aug. 22, 1950
800 m.	1 m. 46.6 s.	Rudolf Harbig	Germany	Milan	July 15, 1939
1,000 m.	2 m. 21.4 s.	O. Rune Gustafsson	Sweden	Boras, Sweden	Sept. 4, 1946
		Marcel Hansenne	France	Gothenburg	Aug. 27, 1948
1,500 m.	3 m. 43 s.	Gunder Hagg	Sweden	Gothenburg	July 7, 1944
		Lennart Strand	Sweden	Malmo	July 15, 1947
2,000 m.	5 m. 7 s.	Gaston Reiff	Belgium	Brussels	Sept 29, 1948
3,000 m.	7 m. 58.8 s.	Gaston Reiff	Belgium	Gavle, Sweden	Aug. 12, 1949
5,000 m.	13 m. 58.2 s.	Gunder Hagg	Sweden	Gothenburg	Sept. 20, 1942
10,000 m.	29 m. 2.6 s.	Emil Zatopek	Czechoslovakia	Turku	Aug. 4, 1950
20,000 m.	1 h. 2 m. 40.2 s.	Viljo Heino	Finland	Turku	Sept. 22, 1949
25,000 m.	1 h. 20 m. 14 s.	Mikko Hietanen	Finland	Gamlakarleby	May 23, 1948
30,000 m.	1 h. 39 m. 14.6 s.	F. K. Vanin	U.S.S.R.	Tbilisi, U.S.S.R.	Nov. 1, 1949
1 hour	19,339 meters	Viljo Heino	Finland	Turku	Sept. 30, 1945

WALKING—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
3,000 m.	11 m. 51.8 s.	Werner Hardmo	Sweden	Malmo	Sept. 1, 1945
5,000 m.	20 m. 26.8 s.	Werner Hardmo	Sweden	Kumla	July 31, 1945
10,000 m.	42 m. 39.6 s.	Werner Hardmo	Sweden	Kumla	Sept. 9, 1945
15,000 m.	1 h. 8 m. 28 s.	D. Paraschivescu	Rumania	Bucharest	Mar. 20, 1949
20,000 m.	1 h. 32 m. 28.4 s.	John Mikaelsson	Sweden	Vaxjo	July 12, 1942
30,000 m.	2 h. 28 m. 57.4 s.	H. Olsson	Sweden	Boras	Aug. 15, 1943
50,000 m.	4 h. 34 m. 3 s.	Paul Sievert	Germany	Munich	Oct. 5, 1924
1 hr.	13,812 m.	John Mikaelsson	Sweden	Stockholm	Sept. 1, 1945
2 hr.	25,531 m.	Olle Anderson	Sweden	Stockholm	Sept. 15, 1945

HURDLES (10 hurdles)

Event	Record	Holder	Home country	Where made	Date
120 yd.	13.5 s.	R. A. Attlesey	United States	Fresno, Calif.	May 13, 1950
220 yd.	22.3 s.	Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
440 yd.	51.9 s.	A. Filiput	Italy	Milan	Oct. 8, 1950
110 m.	13.6 s.	Harrison Dillard	United States	Lawrence, Kansas	Apr. 17, 1948
		R. A. Attlesey	United States	College Park, Md.	June 24, 1950
200 m.	22.3 s.	Fred Wolcott	United States	Princeton, N. J.	June 8, 1940
		Harrison Dillard	United States	Salt Lake City, Utah	June 21, 1947
400 m.	50.6 s.	Glenn Hardin	United States	Stockholm	July 26, 1934

RELAY RACES

Event	Record	Holder	Home country	Where made	Date
440 yd. (4 x 110)	40.5 s.	Univ. of So. California (L. LaFond, W. C. Andersson, P. Jordan, A. Talley)	United States	Fresno Calif.	May 14, 1938
880 yd. (4 x 220)	1 m. 24 s.	Univ. of So. California (M. Patton, R. Frazier, G. Pasquali, N. Stocks)	United States	Los Angeles	May 20, 1949
1 mi. (4 x 440)	3 m. 9.4 s.	Univ. of California (John Reese, F. A. Froom, C. F. Barnes, Grover Klemmer)	United States	Los Angeles	June 17, 1941
2 mi. (4 x 880)	7 m. 34.6 s.	Univ. of California (John Reese, Grover Klemmer, Dick Peter, Clarence Barnes)	United States	Los Angeles	May 24, 1941
4 mi. (4 x 1 mile)	16 m. 42.8 s.	Gefle Idrottsforening (I. Bengtsson, G. Bergkvist, O. Aberg, H. Eriksson)	Sweden	Stockholm	Aug. 5, 1949

RELAY RACES—METRIC DISTANCES

Event	Record	Holder	Home country	Where made	Date
400 m. (4 x 100)	39.8 s.	U. S. A. National Team (Owens, Metcalfe, Draper, Wykoff)	United States	Berlin	Aug. 9, 1936
800 m. (4 x 200)	1 m. 24 s.	Univ. of So. California (M. Patton, R. Frazier, G. Pasquali, N. Stocks)	United States	Los Angeles	May 20, 1949
1600 m. (4 x 400)	3 m. 8.2 s.	U. S. A. National Team (Fuqua, Ablowich, Warner, Carr)	United States	Los Angeles	Aug. 7, 1932
3,200 m. (4 x 800)	7 m. 29 s.	Swedish National Team (T. Sten, O. Linder, S. Lindgard, Lennart Strand)	Sweden	Stockholm	Sept. 13, 1946
6,000 m. (4 x 1500)	15 m. 30.2 s.	Gefle Idrottsforening (I. Bengtsson, G. Bergkvist, O. Aberg, H. Eriksson)	Sweden	Gavle	July 3, 1949

FIELD EVENTS

Event	Record	Holder	Home country	Where made	Date
High jump	6 ft. 11 in. (2.11 m.)	Les Steers	United States	Los Angeles	June 17, 1941
Running broad jump	26 ft. 8¼ in. (8.13 m.)	Jesse Owens	United States	Ann Arbor	May 25, 1935
Rng. hop, step, jump	52 ft. 5⅞ in. (16 m.)	Naoto Tajima	Japan	Berlin	Aug. 6 1936
		A. F. da Silva	Brazil	São Paulo, Brazil	Dec. 3, 1950
Pole vault	15 ft. 7¾ in. (4.77 m.)	C. Warmerdam	United States	Modesto, Calif.	May 23, 1942
16-lb. shot-put	58 ft. 10½ in. (17.95 m.)	James Fuchs	United States	Ekilstuna, Sweden	Aug. 22, 1950
Discus throw	186 ft. 11 in. (56.97 m.)	Fortune Gordien	United States	Tavastehus, Finland	Aug. 14, 1949
Javelin throw	258 ft. 2⅜ in. (78.70 m.)	Yrjo Nikkanen	Finland	Kotka	Oct. 16, 1938
16-lb. hammer throw	196 ft. 5½ in. (59.88 m.)	Irme Nemeth	Hungary	Budapest	May 16, 1950

DECATHLON

Points	Holder	Home country	Where made	Date
8,042	Robert Mathias	United States	Tulare, Calif.	June 29–30, 1950

WOMEN'S WORLD RECORDS

RUNNING

Event	Record	Holder	Home country	Where made	Date
100 yd.	10.7 s.	Marjorie Jackson	Australia	Newcastle, Austr.	Mar. 31, 1950
220 yd.	24.2 s.	F. E. Blankers-Koen.	Netherlands	Brescia, Italy	June 29, 1950
880 yd.	2 m. 15.6 s.	Anna Larsson	Sweden	Stockholm	Sept. 5, 1945
60 m.	7.3 s.	Stella Walasiewicz	Poland	Lemberg, Pol.	Sept. 24, 1933
100 m.	11.5 s.	Helen Stephens	United States	Berlin	Aug. 4, 1936
		F. E. Blankers-Koen.	Netherlands	Amsterdam	June 13, 1948
200 m.	23.6 s.	Stella Walasiewicz	Poland	Warsaw	Aug. 15, 1935
800 m.	2 m. 13 s.	E. M. Vasiljeva	U.S.S.R.	Moscow	July 17, 1950

RELAY RACES

440 yd. (4 x 110)	47.4 s.	National Team (De Jongh, Witziers-Timmer, Kade-Koudys, Blankers-Koen)	Netherlands	Ryswyk, Neth.	July 25, 1943
400 m. (4 x 100)	46.4 s.	National Team (Albus, Krauss, Dollinger, Dörffeldt)	Germany	Berlin	Aug. 8, 1936
800 m. (4 x 200)	1 m. 40.6 s.	Dinamo Club (S. Malshena, A. Tchudina, Z. Duhovitch, E. I. Sechenova)	U.S.S.R.	Moscow	July 12, 1950
2,400 m. (3 x 800)	6 m. 49.6 s.	National Team (L. Sokolova, N. Kabysh, E. Vasiljeva)	U.S.S.R.	Moscow	July 24, 1950
1½ mi. (3 x 880)	6 m. 53.8 s.	National Team (Zhiljcova, Dmitruk, Vasiljeva)	U.S.S.R.	Tbilisi, U.S.S.R.	Oct. 28, 1949

HURDLES

80 m.	11 s.	F. E. Blankers-Koen.	Netherlands	Amsterdam	June 20, 1948

FIELD EVENTS

Rng. high jump	15 ft. 7¼ in. (1.71 m.)	F. E. Blankers-Koen.	Netherlands	Amsterdam	May 30, 1943
Broad jump	20 ft. 6 in. (6.25 m.)	F. E. Blankers-Koen.	Netherlands	Leiden, Neth.	Sept. 19, 1943
Shot-put	49 ft. 3¼ in. (15.02 m.)	A. S. Andreeva	U.S.S.R.	Ploesti, Rumania	Nov. 9, 1950
Discus throw	174 ft. 8½ in. (53.25 m.)	N. Dumbadze	U.S.S.R.	Moscow	Aug. 8, 1948
Javelin throw	175 ft. 2¾ in. (53.41 m.)	N. V. Smirnitskaja	U.S.S.R.	Moscow	Aug. 5, 1949

PENTATHLON

418 points	Gisela Mauermayer	Germany	Stuttgart	July 16-17, 1938	

INDOOR MILE WINNERS, 1951

Source: Joseph M. Sheehan, *The New York Times.*

Washington Star—Don Gehrmann, Milwaukee	4:16.6
Phila. Inquirer—Don Gehrmann	4:12.4
Boston K. of C.—Don Gehrmann	4:11.5
Wanamaker (Millrose A. A.)—Don Gehrmann	4:07.5
Hunter (B. A. A.)—Don Gehrmann	4:07.9
Baxter (N. Y. A. C.)—Don Gehrmann	4:08.2
National A. A. U.—Fred Wilt, New York A. C.	4:09.4
I. C. 4-A—Fred Dwyer, Villanova	4:16.2
Zamperini—Don Gehrmann	4:08.6
New York K. of C.—Fred Wilt	4:08.4
Heptagonal—Walt Mollineaux, Brown	4:23.1
Big Ten—Leonard Truex, Ohio State	4:10.4
Cleveland K. of C.—Leonard Truex	4:13.8
Milwaukee Journal—Fred Wilt	4:08.9
Chicago Relays—Don Gehrmann	4:09.7
Buffalo—Don Gehrmann	4:09.1

BOSTON MARATHON, 1951

(Fifty-fifth running)

Leading Finishers

		h. m. s.
1.	Shigeki Tanaka, Japan	2:27:45
2.	John Lafferty, Boston	2:31:15
3.	Anthanassios Ragazos, Greece	2:35:27
4.	Louis White, New York	2:35:53
5.	Shunji Koyanagi, Japan	2:38:36
6.	Johnny Kelley, West Acton, Mass.	2:39:09
7.	Gerry Cote, Hyacinthe, P. Q.	2:41:15
8.	Yoshitaka Uchikawa, Japan	2:41:31
9.	Hiromi Haigo, Japan	2:42:23
10.	Jesse Van Zant, Boston	2:43:25
11.	Sevki Koru, Turkey	2:43:41
12.	John Marshall, Boston	2:43:49
13.	Fran Austin, Boston	2:46:07
14.	John Doherty, Medford, Mass.	2:48:37
15.	Theodore Corbett, New York	2:48:42
16.	Andrew Neidnig, New York	2:49:20

The marathon distance is 26 miles 385 yards. The record for the Boston course is 2 hours 25 minutes 39 seconds, made by Yun Bok Su of Korea in 1947.

NATIONAL A. A. U. TRACK AND FIELD CHAMPIONS, 1951

Senior Outdoor

100 m.—Jim Golliday, Northwestern Freshmen	0:10.3
200 m.—Jim Ford, Drake	0:20.8
400 m.—George Rhoden, Morgan State	0:46
800 m.—Mal Whitfield, Grand Street Boys, N. Y.	1:52.9
1,500 m.—Leonard Truex, Ohio State	3:52
5,000 m.—Fred Wilt, New York A. C.	14:47.5
10,000 m.—Curtis C. Stone, New York A. C.	32:30.7
110-m. hurdles—Dick Attlesey, Los Angeles A. C.	0:13.8
200-m. hurdles—Jack Davis, Los Angeles A. C.	0:23.2
400-m. hurdles—Charles Moore, New York A. C.	0:51.4
3,000-m. steeplechase—Horace Ashenfelter, Penn A. C., Philadelphia	9:24.5
3,000-m. walk—Henry H. Laskau, New York	13:13.2
Broad jump—George Brown, Circle A. C., Los Angeles	24 ft. 8½ in.
High jump—J. Lewis Hall, Jr., U. of Florida	6 ft. 8 in.
Hop, step, and jump—Gaylord Bryan, Olympic Club, San Francisco	46 ft. 11½ in.
Discus—Dick Doyle, Olympic Club	175 ft. 6½ in.
56-lb. weight—Henry Dreyer, N. Y. A. C.	41 ft. 6¾ in.
Hammer—Sam Felton, New York A. C.	184 ft. 2¾ in.
Javelin—Franklin Held, Olympic Club	241 ft. ¾ in.
Pole vault—Robert Richards, Illinois A. C., Chicago	13 ft. 6 in.
Shot-put—Parry O'Brien, Los Angeles A. C.	55 ft. 9¼ in.
Team—Los Angeles A. C.	131 25/42 pts.
Decathlon—Robert Richards	7,834 pts.
All-around—John Voight, Baltimore Olympic Club	5,600 pts.
Pentathlon—Brayton Norton, San Diego Naval Training Center	3,452 pts.
Marathon—Jesse Van Zant, Boston A. A.	2:37:12.5
400-m. relay—Morgan State (Lance Thompson, Byron LaBeach, George Rhoden, Arthur Bragg)	0:41.8
1,600-m. relay—Grand Street Boys—New York (Morris Curratta, Phil Thigpen, Bob Carter, Herb McKenley)	3:12
2,900-m. relay (400, 200, 800, 1,500)—New York A. C. (Charles Moore, Henry Thresher, Robert Mealey, Fred Wilt)	7:02.2

Junior Outdoor

100 m.—Jim Ford, Drake	0:10.5
200 m.—Charles Thomas, San Antonio A. C.	0:20.8
400 m.—Gary Scott, Iowa	0:48.1
800 m.—John Lepard, San Antonio A. C.	1:52.1
1,500 m.—Franklin Albertson, Tennessee	3:58.8
5,000 m.—Wes Santee, Kansas	15:03.4
10,000 m.—Walt Deike, Wisconsin	33:04.3
110-m. hurdles—Willie Stevens, Chicago C.Y.O.	0:14.4
200-m. hurdles—Jack Greenwood, Kansas	0:23
400-m. hurdles—Roger French, Los Angeles A. C.	0:55.2
3,000-m. steeplechase—Bob McMullen, Olympic Club, San Francisco	10:16
3,000-m. walk—Price King, Olympic Club	14:45.5
Broad jump—Sal Mazzocca, unattached	23 ft. 6 in.
High jump—Arnold Betton, unattached	6 ft. 6 in.
Hop, step, and jump—James Gerhardt, Rice	46 ft. 1 in.
Discus—Duane Taylor, Idaho	157 ft. 11½ in.
56-lb. weight—Cliff Blair, Boston Univ.	34 ft. ⅜ in.
Hammer—Cliff Blair	167 ft. 10⅞ in.
Javelin—John White, Olympic Club	222.85 ft.
Pole vault—Lyle Dickey, Multnomah A. C., Portland, Oreg.	13 ft. 9 in.
Shot-put—Wallace Tanner, Colorado	49 ft. 7¾ in.
Team—Olympic Club, San Francisco	133 pts.

Senior Indoor

60 yd.—Edward Conwell, N. Y. Pioneer Club	0:06.2
600 yd.—Hugo Maiocco, Pioneer Club	1:12.4
1,000 yd.—Roscoe Browne, Pioneer Club	2:14
Mile—Fred Wilt, New York A. C.	4:09.4
3 miles—Curtis C. Stone, Shanahan Catholic Club, Philadelphia	14:12.8
60-yd. high hurdles—Harrison Dillard, Cleveland	0:07.4
Mile walk—Henry H. Laskau, New York	6:27
Sprint medley relay (400–100–220–300)—Seton Hall (Harry Bright, Stanley Bestys, Morris Curratta, Andy Stanfield)	1:55.1
Mile relay—Seton Hall (David Evans, Edward McArdle, Charles Slade, Robert Carter)	3:20.4
2-mile relay—Georgetown A (Dave Boland, Joe Lapierre, Carl Joyce, Joseph Deady)	7:38.8
Broad jump—Andy Stanfield, Seton Hall	24 ft. 4¾ in.
High jump—Joshua Williamson, Warinanco A. C., Newark, N. J.; John Heintzman, Peoria, Ill., and Jack Razetto, San Diego State (tie)	6 ft. 5½ in.
Pole vault—Robert Richards, Illinois A. C.	15 ft.
Shot-put—Jim Fuchs, New York A. C.	57 ft. 11⅛ in.
35-lb. weight—Thomas Bane, Tufts	59 ft. 4½ in.
Team—Pioneer Club, New York	20¼ pts.

Junior Indoor

60 yd.—Lindy Remigino, Manhattan	0:06.5
600 yd.—Vernon Dixon, Manhattan	1:13.5
1,000 yd.—Lewis Olive, U. S. M. A. Prep	2:19.5
Mile—Kevin Delaney, New York A. C.	4:19.8
3 miles—John Johnson, St. John's U.	14:59.3
60-yd. high hurdles—Lester Scott, Morgan State	0:03
Mile walk—Frank Lamorte, Staten Island Harriers	6:54.8
1,060-yd. sprint medley relay—Morgan State (Louis Gooden, John Davis, Byron LaBeach, John Triplett)	1:57.4
Mile relay—Providence (John McMullen, Robert Viernan, John Cassidy, James Penler)	3:27.8
2-mile relay—Yale (Peter White, Frank Efinger, Edward Mearns, Warren Clifford)	7:56
Broad jump—Robert Carty, Manhattan	23 ft. 4 in.
High jump—James Cooke, Lincoln U.	6 ft. 3½ in.
Pole vault—James Harrington, Manhattan; Walton Tiffany, Columbia; John Brown and Richard Alger, Yale (tie)	12 ft.
Shot-put—John Ogle, Manhattan	49 ft. ⅛ in.
35-lb. weight—John Ogle	57 ft. ¼ in.
Team—Manhattan	41¼ pts.

Women's Outdoor

50 m.—Mary McNabb, Tuskegee Institute	0:06.6
100—Mary McNabb	0:12.2
200—Jean Patton, Tenn. State College	0:25.4
80 hurdles—Mrs. Nancy Phillips, German American A. C., New York	0:12.2
400 relay—Tuskegee (Miss McNabb, Catherine Johnson, Evelyn Lawlor, Nell Jackson)	0:49.8
280 shuttle hurdle relay—Tuskegee (Lula Bell, Dorothy Chisholm, Essye Davenport, Miss Lawlor)	0:41.2
Broad jump—Stella Walsh, Polish Falcon Club, Cleveland	17 ft. 3 in.
High jump—Marion Boos, Police A. L., New York	4 ft. 9¾ in.
Discus—Frances Kaszubski, Cleveland	121 ft. ½ in.
Javelin—Frances Licata, Police A. L.	120 ft. ½ in.
8-lb. shot-put—Amelia Bert, Little Rhody A. C., Providence	41 ft. 3 in.
Baseball throw—Amelia Wershoven, Equitable Life, New York	225 ft. 1¾ in.
Team—Tuskegee Institute	95 pts.
Pentathlon—Stella Walsh	3,932 pts.

History of the Mile Run

Year	Athlete and country	Where made	Time
1865	Webster, England	England	4:44.3
1866	C. B. Lawes, England	England	4:39
1868	W. M. Chinnery, England	England	4:33.2
1871	W. M. Chinnery, England	England	4:31.8
1874	Walter Slade, England	England	4:24.5
1881	Walter George, England	England	4:19.3
1884	Walter George, England	England	4:18.4
1895	F. E. Bacon, England	England	4:17
1895	T. P. Conneff, United States	United States	4:15.6
1911	John Paul Jones, United States	United States	4:15.4
1913	John Paul Jones, United States	United States	4:14.4
1915	Norman Taber, United States	United States	4:12.6
1923	Paavo Nurmi, Finland	Sweden	4:10.4
1931	Jules Ladoumegue, France	France	4:09.2
1933	John Lovelock, New Zealand	United States	4:07.6
1934	Glenn Cunningham, United States	United States	4:06.8
1937	Sydney Wooderson, England	England	4:06.4
1942	Gunder Hagg, Sweden	Sweden	4:06.2
1942	Gunder Hagg, Sweden	Sweden	4:04.6
1943	Arne Andersson, Sweden	Sweden	4:02.6
1944	Arne Andersson, Sweden	Sweden	4:01.6
1945	Gunder Hagg, Sweden	Sweden	4:01.4

SULLIVAN AWARD WINNERS

The James E. Sullivan Memorial Award is given annually to the amateur athlete voted by sports leaders as having done the most to advance the cause of sportsmanship.

Year	Winner	Sport
1930	Robert T. Jones, Jr.	Golf
1931	Bernard E. Berlinger	Track and field
1932	James A. Bausch	Track and field
1933	Glenn Cunningham	Running
1934	William R. Bonthron	Running
1935	W. Lawson Little, Jr.	Golf
1936	Glenn Morris	Track and field
1937	J. Donald Budge	Tennis
1938	Donald R. Lash	Running
1939	Joseph W. Burk	Rowing
1940	J. Gregory Rice	Running
1941	Leslie MacMitchell	Running
1942	Cornelius Warmerdam	Pole vaulting
1943	Gilbert L. Dodds	Running
1944	Ann Curtis	Swimming
1945	Felix (Doc) Blanchard	Football
1946	Y. Arnold Tucker	Football
1947	John D. Kelly, Jr.	Rowing
1948	Robert B. Mathias	Track and field
1949	Richard T. Button	Figure skating
1950	Fred Wilt	Running

OTHER 1951 A. A. U. CHAMPIONS

Walking

10 km.—Henry H. Laskau, New York 0:46:45
15 km.—Price King, San Francisco 1:21:38
25 km.—Jimmy Sidun, Pittsburgh 2:12:27
30 km.—John Deni, Pittsburgh 2:32:15
35 km.—John Deni 3:07:00.4
40 km.—Fred Hayward, St. John's Newfoundland .. 4:03:10
50 km.—William Mihalo, Detroit 5:25:38

Running

15 km.—Louis White, New York 0:49:51.3
20 km.—Thomas Crane, North Medford, Mass. 1:09:46
Junior marathon—Fran Austin, Boston 2:35:33

1951 PAN AMERICAN CHAMPIONSHIPS

(At Buenos Aires, Feb. 25–March 3)

100 m.—Rafael Fortun Chacon, Cuba 0:10.6
200 m.—Rafael Fortun Chacon 0:21.3
400 m.—Mal Whitfield, United States 0:47.3
800 m.—Mal Whitfield 1:53.2
1,500 m.—Browning Ross, United States 4:00.4
5,000 m.—Ricardo Bralo, Argentina 14:57.2
10,000 m.—Curtis Stone, United States 31:03.6
Marathon—Delfo Cabrera, Argentina ..... 2 h. 35 m.
110-m. hurdles—Dick Attlesey, United States 0:14
400-m. hurdles—Jaime Aparico, Colombia 0:53.4
3,000-m. steeplechase—Curtis Stone 9:32
400-m. relay—United States (Donald Campbell, Attlesey, John Voight, Arthur Bragg) 0:41
1,600-m. relay—United States (Hugo Maiocco, William Brown, Voight, Whitfield) 3:09.9
10,000-m. walk—Henry Laskau, United States 50:26.8
50,000-m. walk—Sixto Ibanez, Argentina 5:06:06.8
Broad jump—Gaylord Bryan, United States ..... 23 ft. 7 in.
High jump—Virgil Severns, United States ..... 6 ft. 4¾ in.
Discus—James Fuchs, United States ..... 160 ft. 3 in.
Hammer—Emilio Ortiz, Argentina ..... 157 ft. 7⅜ in.
Hop, step, and jump—Ademar Ferreira da Silva, Brazil ..... 50 ft.
Javelin—Ricardo Heber, Argentina ..... 223 ft. 4⅜ in.
Pole vault—Robert Richards, United States ..... 14 ft. 9¼ in.
Shot-put—James Fuchs ..... 56 ft. 7⅜ in.
Decathlon—Hernan Figueroa, Chile ..... 6,615 pts.

Women's A. A. U. Indoor Champions, 1951

50 yd.—Catherine Hardy, Fort Valley State 0:06.3
100—Jean Patton, Tenn. State College 0:11.2
220—Mae Faggs, Police A. L., New York 0:26.9
50 low hurdles—Nancy Phillips, German American A. C. 0:07.2
440 medley relay—Police Athletic League (Mae Faggs, Bessie Barfield, Joyce Fleming, Mary Spencer) 0:52.5
440 relay—P. A. L. (Miss Barfield, Harriet Norris, Marie Taylor, Mae Faggs) 0:52.7
280 shuttle hurdle relay—German American A. C. (Constance Danowski, Loretta Blaul, Ann Carmen, Mrs. Phillips) 0:41.8
Standing broad jump—Janet Moreau, Little Rhody A. C. ..... 8 ft. 0¾ in.
High jump—Marion Boos, P. A. L., and Nancy Phillips (tie) ..... 4 ft. 10½ in.
8-lb. shot-put—Frances Kaszubski, Sandy's Club, Cleveland ..... 39 ft. 1⅝ in.
Basketball throw—Marion Barone, Philadelphia Turners ..... 93 ft.
Team—Police Athletic League, New York 33½ pts.

BOXING

WHETHER it be called pugilism, prize fighting or boxing, there is no tracing "the Sweet Science" to any definite source. Tales of rivals exchanging blows for fun, fame or money go back to earliest recorded history and classical legend. There was a mixture of boxing and wrestling called the "pancratium" in the ancient Olympic Games and in such contests the rivals belabored one another with hands fortified with heavy leather wrappings that were sometimes studded with metal. More than one Olympic competitor lost his life at this brutal exercise.

There was little law or order in pugilism until Jack Broughton, one of the early champions of England, drew up a set of rules for the game in 1743. Broughton, called "the father of English boxing," also is credited with having invented boxing gloves. However, these gloves—or "mufflers" as they were called—were used only in teaching "the manly art of self-defense" or in training bouts. All professional championship fights were contested with "bare knuckles" until 1892 when John L. Sullivan lost the heavyweight championship of the world to James J. Corbett in New Orleans in a bout in which both contestants wore regulation gloves.

The Broughton rules were superseded by the London Prize Ring Rules of 1838. The 8th Marquess of Queensberry, with the help of John G. Chambers, put forward the "Queensberry Rules" in 1866, a code that called for gloved contests. Amateurs took quickly to the Queensberry Rules, the professionals slowly.

There is no official international set of rules for boxing even today. Amateur organizations set rules for amateurs in different countries and professional rules set by boxing commissions vary even in different sections of the United States, but the variations are for the most part minor. A prize fighter doesn't have to change his style greatly to ply his trade anywhere in the world.

Boxing Statistics

Source: Nat Fleischer's *All-Time Ring Record Book*, published and copyrighted by The Ring Book Shop, Inc., Madison Square Garden, New York, N. Y.

Boxing's Biggest Gates

WF—Won on foul. ND—No decision. (1st)—First bout. (2d)—Second bout. (3d)—Third bout.

Date	Winner, weight	Loser, weight	Rounds	Site	Receipts	Attendance
Sept. 22, 1927	Tunney (189½)-	Dempsey (192½) (2d)..	10	Soldier Field, Chicago.....	$2,658,660	104,943
June 19, 1946	Louis (207)-	Conn (187) (2d).....	KO 8	Yankee Stadium, New York.....	1,925,564	45,266
Sept. 23, 1926	Tunney (189½)-	Dempsey (190) (1st)....	10	Sesquicentennial Stdm., Phila....	1,895,733	120,757
July 2, 1921	Dempsey (188)-	Carpentier (172).....	KO 4	Boyle's 30 Acres, Jersey City.....	1,789,238	80,000
Sept. 14, 1923	Dempsey (192½)-	Firpo (216½).....	KO 2	Polo Grounds, New York.....	1,188,603*	82,000
July 21, 1927	Dempsey (194½)-	Sharkey (196).....	KO 7	Yankee Stadium, New York.....	1,083,530*	75,000
June 22, 1938	Louis (198¾)-	Schmeling (193) (2d).....	KO 1	Yankee Stadium, New York.....	1,015,012*	70,000
Sept. 24, 1935	Louis (199¼)-	Max Baer (210½).....	KO 4	Yankee Stadium, New York.....	1,000,832*	88,150
June 25, 1948	Louis (213½)-	Walcott (194¼) (2d).....	KO 11	Yankee Stadium, New York.....	841,739	42,667
Sept. 12, 1951	Robinson (157½)-	Turpin (159) (2d).....	KO 10	Polo Grounds, New York.....	767,626	61,370
June 12, 1930	Schmeling (188)-	Sharkey (197) (1st)....	WF 4	Yankee Stadium, New York.....	743,935	79,222
June 22, 1937	Louis (197¼)-	Braddock (197).....	KO 8	Comiskey Park, Chicago.....	715,470	45,500
July 26, 1928	Tunney (192)-	Heeney (203½).....	KO 11	Yankee Stadium, New York.....	691,014	45,890
Sept. 23, 1941	Louis (202¼)-	Nova (202½).....	KO 6	Polo Grounds, New York.....	583,711	56,549
June 19, 1936	Schmeling (192)-	Louis (198) (1st).....	KO 12	Yankee Stadium, New York.....	547,541	42,088
Sept. 11, 1924	Wills (217)-	Firpo (224½).....	12	Boyle's 30 Acres, Jersey City.....	509,135	70,000
July 15, 1926	Delaney (166½)-	Berlenbach (174¼) (3d)	15	Ebbets Field, Brooklyn.....	451,789	49,186
July 23, 1923	Leonard (134)-	Tendler (133½) (2d).....	15	Yankee Stadium, New York.....	452,648	58,519
July 4, 1919	Dempsey (187)-	Willard (245).....	KO 3	Toledo, Ohio.....	452,224	19,650
June 18, 1941	Louis (199½)-	Conn (174) (1st).....	KO 13	Polo Grounds, New York.....	451,743	60,071
June 21, 1932	Sharkey (205)-	Schmeling (183) (2d)....	15	Long Island City Bowl, N. Y.....	432,365	61,863
June 14, 1934	Max Baer (203½)-	Carnera (263¼).....	KO 11	Long Island City Bowl, N. Y.....	428,000	56,000
July 16, 1947	Graziano (154¼)-	Zale (153) (2d).....	KO 6	Chicago Stadium.....	422,918	18,547
Feb. 27, 1929	Sharkey (192)-	Stribling (182).....	10	Flamingo Park, Miami Beach, Fla..	405,000	40,000
July 12, 1923	Firpo (214)-	Willard (242).....	KO 8	Boyle's 30 Acres, Jersey City.....	390,837	80,000
May 12, 1923	Firpo (212)-	McAuliffe (200).....	KO 3	Yankee Stadium, New York.....	335,040	31,000
	Willard (245)-	Floyd Johnson (195).....	KO 11			
June 27, 1929	Schmeling (187)-	Uzcudun (192½) (1st).	15	Yankee Stadium, New York.....	378,902	65,000
July 27, 1922	Leonard (134 15/16)-	Tendler (134¼) (1st).	ND 12	Boyle's 30 Acres, Jersey City.....	367,862	54,685
July 3, 1931	Schmeling (183)-	Stribling (186½).....	KO 15	Cleveland Stadium.....	343,415	37,396
Sept. 20, 1939	Louis (200)-	Pastor (183) (2d).....	KO 11	Briggs Stadium, Detroit.....	347,870	33,868
Sept. 27, 1946	Zale (160)-	Graziano (154) (1st).....	KO 6	Yankee Stadium, New York.....	342,497	39,827
Sept. 19, 1946	Louis (211¼)-	Mauriello (188½).....	KO 1	Yankee Stadium, New York.....	335,063	38,494
June 28, 1939	Louis (200¾)-	Galento (233¼).....	KO 4	Yankee Stadium, New York.....	333,308	34,852
June 25, 1935	Louis (196)-	Carnera (260½).....	KO 6	Yankee Stadium, New York.....	328,655	62,000

* Includes income from other sources, such as motion pictures or radio, or both.

HISTORY OF WORLD HEAVYWEIGHT CHAMPIONSHIP FIGHTS

(Bouts in which title changed hands)

WF—Won on foul.

Date	Where held	Winner, weight, age	Loser, weight, age	Rounds	Referee
July 8, 1889	Richburg, Miss.....	John L. Sullivan, 198 (30)...	Jake Kilrain, 195 (30).....	75	John Fitzpatrick
		(Last bare-knuckle title fight)			
Sept. 7, 1892	New Orleans, La....	James J. Corbett, 178 (26)...	John L. Sullivan, 212 (33).	21	Prof. John Duffy
March 17, 1897	Carson City, Nev....	Bob Fitzsimmons, 167 (34)..	James J. Corbett, 183 (30).	KO 14	George Siler
June 9, 1899	Coney Island, N. Y..	*James J. Jeffries, 206 (24)..	Bob Fitzsimmons, 167 (37)	KO 11	George Siler
Feb. 23, 1906	Los Angeles.....	†Tommy Burns, 180 (24)....	Marvin Hart, 188 (29).....	20	James J. Jeffries
Dec. 26, 1908	Sydney, N. S. W....	Jack Johnson, 196 (30).....	Tommy Burns, 176 (27)...	KO 14	Hugh McIntosh
July 4, 1910	Reno, Nev.....	Jack Johnson, 208 (31).....	James J. Jeffries, 227 (34).	KO 15	Tex Rickard
		(Jeffries came out of retirement in an effort to regain title)			
April 5, 1915	Havana, Cuba.....	Jess Willard, 230 (31).....	Jack Johnson, 205½ (37)..	KO 26	Jack Welch
July 4, 1919	Toledo, Ohio.....	Jack Dempsey, 187 (24).....	Jess Willard, 245 (35).....	KO 3	Ollie Pecord
Sept. 23, 1926	Philadelphia.....	‡Gene Tunney, 189½ (28)...	Jack Dempsey, 190 (31)...	10	Pop Reilly
June 12, 1930	New York.....	Max Schmeling, 188 (24)....	Jack Sharkey, 197 (27)....	WF 4	Jim Crowley
June 21, 1932	Long Island City....	Jack Sharkey, 205 (29).....	Max Schmeling, 188 (26)..	15	Gunboat Smith
June 29, 1933	Long Island City....	Primo Carnera, 260½ (26)...	Jack Sharkey, 201 (30)....	KO 6	Arthur Donovan
June 14, 1934	Long Island City....	Max Baer, 209½ (25).....	Primo Carnera, 263¼ (27).	KO 11	Arthur Donovan
June 13, 1935	Long Island City....	Jim Braddock, 193¾ (29) ...	Max Baer, 209½ (26).....	15	Jack McAvoy
June 22, 1937	Chicago.....	Joe Louis, 197¼ (23).....	Jim Braddock, 197 (31) ...	KO 8	Tommy Thomas
June 22, 1949	Chicago.....	(a)Ezzard Charles, 181¾ (27)..	Joe Walcott, 195½ (35)...	15	Davey Miller
Sept. 27, 1950	New York.....	(b)Ezzard Charles, 184½ (29)..	Joe Louis, 218 (36).....	15	Mark Conn
July 18, 1951	Pittsburgh.....	Joe Walcott, 194 (37).....	Ezzard Charles, 182 (30) ..	KO 7	Buck McTiernan

*** Lack of opposition caused Jeffries to retire in March 1905. He named Marvin Hart and Jack Root as the leading contenders and agreed to referee their fight at Reno, Nev., on July 3, 1905, with the stipulation that he would designate the winner the world champion. Hart, 190 (28), knocked out Root, 171 (29), in the twelfth round. † Burns claimed the title after defeating Hart. Philadelphia Jack O'Brien became another claimant after fighting a 20-round draw with Burns at Los Angeles on Nov. 28, 1906, with Jeffries as the referee. Burns, 180 (25), eliminated O'Brien, 167 (29), by defeating him in 20 rounds at Los Angeles, May 8, 1907. Charles Eyton was the referee. ‡ Tunney retired after his bout with Tom Heeney in New York on July 25, 1928. Tunney, 192 (30), knocked out Heeney, 203 (31½), in the eleventh round. Ed Forbes was the referee.**

(a) Recognized by the National Boxing Association because Louis had announced his retirement on March 1, 1949. (b) Charles gained undisputed possession of the title by beating Louis, who came out of retirement in an effort to regain the crown.

BARE-KNUCKLE HEAVYWEIGHT CHAMPIONS, 1719–1892

1719—Jim Figg
1734—George Taylor
1740—Jack Broughton
1750—Jack Slack
1760—Bill Stevens
1761—George Meggs
1765—Bill Darts
1777—Harry Sellers
1780—Jack Harris
1785—Tom (Jackling) Johnson
1790—Big Ben Brain
1792—Daniel Mendoza
1795—John Jackson (retired)
1802—Jem Belcher
1805—Henry Pearce (Game Chicken)
1808—John Gully (declined title)
1809—Tom Cribb received belt, not transferable, and cup.
1824—Tom Spring received four cups; resigned title.
1825—Jem Ward received belt, not transferable.
1838—James (Deaf) Burke claimed title.
1839—William Thompson (Bendigo) beat Burke; claimed championship; received belt from Jem Ward.
1841—Nick Ward (Jem's brother) beat Ben Caunt, Feb. 2. In return match Caunt beat Nick Ward and received belt by subscription. It was transferable.
1845—Thompson beat Caunt and got belt.
1850—Bill Perry (The Tipton Slasher), after fight with Paddock, claimed title.
1851—Harry Broome won title from Perry.
1853—Perry claimed title when Broome forfeited £200 to him in a match; retired from ring on Aug. 13.
1857—Tom Sayers beat Perry for £200 a side and new belt.
1860—Sayers retired after 42-round draw with John C. Heenan (The Benicia Boy), leaving old belt open for competition.
1860—Sam Hurst (The Stalybridge Infant) beat Paddock and received belt.
1861—Jem Mace beat Hurst.
1862—Mace beat Tom King for £200 a side and the belt.
1862—King beat Mace and claimed belt. Subsequently gave it up. Declined to meet Mace again. Mace claimed belt.
1863—King beat Heenan for £1,000 a side.
1865—Joe Wormald beat Andrew Marsden for £200 a side and belt, which had been claimed by both. Belt was given to Wormald, who forfeited £120 to Mace.
1866—Mace and Joe Goss fought draw with £200 a side and belt at stake.
1867—Wormald received £200 forfeit from Ned O'Baldwin and claimed belt when O'Baldwin failed to appear at starting place.
1867—Mace and O'Baldwin drew; £200 a side; title and belt in abeyance.
1868—Wormald and O'Baldwin drew; £200 a side and title in America.
1869—Mike McCoole beat Tom Allen in America for world championship.
1870—Mace beat Allen in America for world championship.
1871—Mace and Joe Coburn fought draw for championship; £500 a side.
1882—John L. Sullivan defeated Paddy Ryan for American championship only; 9 rounds, Mississippi City, Miss. (London Prize Ring rules).
1885—Jem Smith beat Jack Davis for £100 a side and championship of England.
1887—Jake Kilrain and Jem Smith drew; $10,000 and Police Gazette Championship of World belt.
1889—John L. Sullivan beat Jake Kilrain, 75 rounds, Richburg, Miss., July 8, in last bare-knuckle championship fight; $10,000 a side and Police Gazette Belt. (Sullivan claimed world title because of draw fought by Kilrain with Smith, England's titleholder.)

Other World Boxing Titleholders

LIGHT HEAVYWEIGHT CHAMPIONS

1903 —Jack Root, George Gardner
1903–05—Bob Fitzsimmons
1905–12—Philadelphia Jack O'Brien
1912–16—Jack Dillon
1916–20—Battling Levinsky
1920–22—Georges Carpentier
1923 —Battling Siki
1923–25—Mike McTigue
1925–26—Paul Berlenbach
1926–27—Jack Delaney (a)
1927 —Mike McTigue
1927–29—Tommy Loughran (a)
1930–34—Maxie Rosenbloom
1934–35—Bob Olin
1935–39—John Henry Lewis (a)
1939 —Melio Bettina
1939–41—Billy Conn (a)
1941–48—Gus Lesnevich
1948–50—Freddie Mills
1950 —Joey Maxim

(a)Abandoned title.

MIDDLEWEIGHT CHAMPIONS

1867–72—Tom Chandler (bare knuckles).
1872–81—Geo. Rourke (bare knuckles and gloves)
1881–82—Mike Donovan (r)
1884–91—Jack (Nonpareil) Dempsey
1891–97—Bob Fitzsimmons
1897–1907—Tommy Ryan, Kid McCoy, Philadelphia Jack O'Brien (t)
1907–08—Stanley Ketchel
1908 —Billy Papke
1908–10—Stanley Ketchel
1910–13—Billy Papke
1913 —Frank Klaus
1913–14—George Chip
1914–17—Al McCoy
1917–20—Mike O'Dowd
1920–23—Johnny Wilson
1923–26—Harry Greb
1926 —Tiger Flowers
1926–31—Mickey Walker (a)
1931–32—Gorilla Jones (NBA); Ben Jeby (N. Y. Comm.)
1932–37—Marcel Thil*
1938 —Al Hostak and Solly Krieger (NBA)
1939 —Solly Krieger, Al Hostak (NBA); Ceferino Garcia (N. Y. Comm.)
1940 —Tony Zale (NBA); Ken Overlin (N. Y. Comm.)
1941 —Tony Zale (NBA); Billy Soose (N. Y. Comm.)†
1941–47—Tony Zale
1947–48—Rocky Graziano
1948 —Tony Zale
1948–49—Marcel Cerdan
1949–51—Jake La Motta
1951 —Ray Robinson, Randy Turpin
1951 —Ray Robinson

(r)Retired. (t)Title claimants. (a)Abandoned title. * Thil's victory on a foul over Jones gave him a clear title claim, but the New York Commission withheld recognition. At various times during the 1932–37 period, championship recognition by the different bodies was given to the following: Ben Jeby, Lou Brouillard, Vince Dundee, Teddy Yarosz, Babe Risko, and Freddy Steele. Fred Apostoli knocked out Thil in 10 rounds at the Polo Grounds, Sept. 23, 1937, but did not claim the title because of an agreement made with Thil. This was Thil's last fight. † Soose abandoned his claim to the title and Zale became the undisputed champion by defeating Georgie Abrams, who had beaten Soose three times.

WELTERWEIGHT CHAMPIONS

1892–94—Mysterious Billy Smith
1894–96—Tommy Ryan
1896 —Kid McCoy (o)
1900 —Rube Ferns, Matty Matthews
1901 —Rube Ferns
1901–06—Joe Walcott*
1906–07—Honey Mellody
1907 —Mike (Twin) Sullivan†
1915 —Ted Lewis‡
1919–22—Jack Britton
1922–26—Mickey Walker
1926–27—Pete Latzo
1927–29—Joe Dundee
1929–30—Jackie Fields
1930 —Young Jack Thompson
1930–31—Tommy Freeman
1931 —Young Jack Thompson
1931–32—Lou Brouillard
1932–33—Jackie Fields
1933 —Young Corbett 3d
1933–34—Jimmy McLarnin
1934 —Barney Ross
1934–35—Jimmy McLarnin
1935–38—Barney Ross
1938–40—Henry Armstrong
1940–41—Fritzie Zivic
1941–46—Freddie Cochrane
1946–47—Marty Servo (r)
1947–51—Ray Robinson (a)
1951 —Johnny Bratton (NBA)
1951 —Kid Gavilan

(o)Outgrew class. * Walcott lost on foul to Dixie Kid in 1904, but decision was disputed. Dixie Kid went abroad, outgrew class, and Walcott was again recognized as the champion. † Sullivan outgrew class. The title was claimed by Jimmy Gardner, Jimmy Clabby, Ray Bronson, Clarence (Kid) Ferns, Mike Gibbons, Kid Graves, Mike Glover, Ted Lewis, and Jack Britton but no one received recognition as titleholder until Ted Lewis established his claim in 1915. ‡ Lewis outpointed Britton to gain undisputed possession of the crown on Aug. 31, 1915, and fought Britton a number of times over a period of four years with varying results until March 17, 1919, when Britton became the undisputed titleholder by knocking out Lewis. (r) Retired. (a) Abandoned title.

LIGHTWEIGHT CHAMPIONS

1885–96—Jack McAuliffe*
1896–99—Kid Lavigne
1899–02—Frank Erne
1902–08—Joe Gans
1908–10—Battling Nelson
1910–12—Ad Wolgast
1912–14—Willie Ritchie
1914–17—Freddy Welsh
1917–25—Benny Leonard (r)
1925 —Jimmy Goodrich
1925–26—Rocky Kansas
1926–30—Sammy Mandell
1930 —Al Singer
1930–33—Tony Canzoneri
1933–35—Barney Ross
1935–36—Tony Canzoneri
1936–38—Lou Ambers
1938–39—Henry Armstrong
1939–40—Lou Ambers
1940–41—Lew Jenkins
1941–42—Sammy Angott†
1943 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott (NBA).
1944 —Beau Jack, Bob Montgomery (N. Y. Comm.), Sammy Angott, Juan Zurita (NBA).
1945 —Bob Montgomery (N. Y. Comm.), Juan Zurita, Ike Williams (NBA).
1946–47—Bob Montgomery (N. Y. Comm.), Ike Williams (NBA).
1947–51—Ike Williams
1951 —James Carter

* McAuliffe was champion of America, but never held the world crown, his battle for the world title with Jem Carney of England in 1887 resulting in a 74-round draw. (r)Retired. † Angott announced his retiromont on Nov. 13, 1942, leaving the title vacant, but approximately two months later announced his comeback as challenger for the crown.

FEATHERWEIGHT CHAMPIONS

1889 —Freddy Bogan
1890 —Billy Murphy
1892–1900—George Dixon

Featherweight Champions—(Cont.)

1900–01—Terry McGovern
1901 —Young Corbett (o)
1904–08—Brooklyn Tommy Sullivan
1908–12—Abe Attell
1912–23—Johnny Kilbane
1923 —Eugene Criqui
1923–25—Johnny Dundee (o)
1925–27—Louis (Kid) Kaplan (o)
1927–28—Benny Bass
1928 —Tony Canzoneri
1928–29—Andre Routis
1929–32—Battling Battalino (o)
1932 —Tommy Paul (NBA); Kid Chocolate (N. Y. Comm.).
1933–36—Freddie Miller
1936–37—Petey Sarron
1937–38—Henry Armstrong (a)
1938–40—Joey Archibald
1940–41—Harry Jeffra, Joey Archibald
1941–42—Chalky Wright
1942–48—Willie Pep
1948–49—Sandy Saddler
1949–50—Willie Pep
1950 —Sandy Saddler

(o)Outgrew class. (a)Abandoned title.

BANTAMWEIGHT CHAMPIONS

1890–92—George Dixon (o)
1894–99—Jimmy Barry (r)
1899–1900—Terry McGovern (o)
1901 —Harry Harris (o)
1902–03—Harry Forbes
1903–04—Frankie Neil
1904 —Joe Bowker (o)
1905–07—Jimmy Walsh (o)
1910–14—Johnny Coulon
1914–17—Kid Williams
1917–20—Pete Herman
1920–21—Joe Lynch
1921 —Pete Herman
1921–22—Johnny Buff
1922–24—Joe Lynch
1924 —Abe Goldstein
1924–25—Eddie (Cannonball) Martin
1925 —Charlie (Phil) Rosenberg (d)
1929–35—Al Brown
1935–36—Baltazar Sangchili
1936 —Tony Marino
1936–37—Sixto Escobar
1937–38—Harry Jeffra
1938–40—Sixto Escobar (r)
1940–42—Lou Salica
1942–47—Manuel Ortiz
1947 —Harold Dade
1947–50—Manuel Ortiz
1950 —Vic Toweel

(o)Outgrew class. (r)Retired. (d)Deprived of title when unable to make weight for championship bout.

FLYWEIGHT CHAMPIONS

1916–23—Jimmy Wilde
1923–25—Pancho Villa*
1925 —Frankie Genaro
1925–27—Fidel La Barba (r)
1927 —Corporal Izzy Schwartz†
1930 —Midget Wolgast (N. Y. Comm.); Frankie Genaro (NBA).
1931–32—Young Perez‡
1932–35—Jackie Brown
1935–38—Benny Lynch (r)
1939 —Peter Kane (a)
1943–47—Jackie Paterson (d)
1947–50—Rinty Monaghan (r)
1950 —Terry Allen
1950 —Dado Marino

* Villa died in 1925, Genaro claiming title. † Schwartz was recognized as champion by N. Y. Comm., but conditions in the class became confused and were not straightened out until an elimination tourney was held in November, 1929. ‡ Perez was recognized as world's champion by the International Boxing Union of Europe. (r)Retired. (a)Abandoned title. (d)Deprived of title.

Famous Firsts in Boxing

First modern ring champion: Jim Figg of England, 1719.

First set of boxing rules and first set of boxing gloves: Made by Jack Broughton, 1743.

First championship fight in America: Jacob Hyer beat Tom Beasley, 1816.

First glove fight: Between two English boxers, at Aix-la-Chapelle, France, October 8, 1818.

First contest in which motion pictures were filmed for general display to the public: Bob Fitzsimmons *vs.* Jim Corbett bout at Carson City, Nevada, 1897.

First million-dollar gate: Jack Dempsey *vs.* Georges Carpentier at Boyle's Thirty Acres, Jersey City, N. J., July 2, 1921 ($1,789,238).

First round-by-round fight broadcast: Dempsey *vs.* Carpentier, 1921, J. Andrew White announcer.

First fight to draw over 100,000 people: Jack Dempsey *vs.* Gene Tunney at Philadelphia, 1926 (120,757).

First fight on television: Eric Boon *vs.* Arthur Danahar, Harringay Arena, London, England, February 23, 1939.

Neil Memorial Award Winners

The Edward J. Neil Memorial Plaque is given annually by the Boxing Writers' Association of New York to the individual who has done the most to further the cause of the sport. The winners:

1938 Jack Dempsey
1939 Billy Conn
1940 Henry Armstrong
1941 Joe Louis
1942 Sgt. Barney Ross
1943 All U. S. boxers in service
1944 Lt. Comdr. Benny Leonard, U.S.M.S.
1945 James J. Walker
1946 Tony Zale
1947 Gus Lesnevich
1948 Ike Williams
1949 Ezzard Charles
1950 Ray Robinson

WORLD CHAMPIONSHIP FIGHTS IN 1951

Source: Murray Goodman, Publicity Director, International Boxing Club.

Date	Winner	Loser	Title at stake	Where held	Rounds	Attendance
Jan. 12	Ezzard Charles	Joe Oma	Heavyweight	New York	KO 10	11,504
Feb. 14	*Ray Robinson	Jake La Motta	Middleweight	Chicago	TKO 13	14,802
Mar. 7	Ezzard Charles	Joe Walcott	Heavyweight	Detroit	15	13,852
Mar. 14	†Johnny Bratton	Charley Fusari	Welterweight	Chicago	15	6,954
May 18	*Kid Gavilan	Johnny Bratton	Welterweight	New York	15	11,747
May 25	*James Carter	Ike Williams	Lightweight	New York	KO 14	3,594
May 30	Ezzard Charles	Joey Maxim	Heavyweight	Chicago	15	7,226
July 10	*Randy Turpin	Ray Robinson	Middleweight	London	15	18,000
July 18	*Joe Walcott	Ezzard Charles	Heavyweight	Pittsburgh	KO 7	28,272
Aug. 22	Joey Maxim	Bob Murphy	Light heavyweight	New York	15	9,525
Aug. 29	Kid Gavilan	Billy Graham	Welterweight	New York	15	8,137
Sept. 12	*Ray Robinson	Randy Turpin	Middleweight	New York	TKO 10	61,370
Sept. 26	Sandy Saddler	Willie Pep	Featherweight	New York	TKO 9	13,836
Nov. 1	Dado Marino	Terry Allen	Flyweight	Honolulu	15	8,813

* Won title. † Recognized as champion by National Boxing Association.

Joe Louis' Title Fights

	1937		
June 22	James J. Braddock, Chicago	KO	8
	(Won heavyweight championship of the world)		
Aug. 30	Tommy Farr, Yankee Stadium	W	15
	1938		
Feb. 23	Nathan Mann, Madison Square Garden	KO	3
Apr. 1	Harry Thomas, Chicago	KO	5
June 22	Max Schmeling, Yankee Stadium	KO	1
	1939		
Jan. 25	John Henry Lewis, Madison Sq. Garden	KO	1
Apr. 17	Jack Roper, Los Angeles	KO	1
June 28	Tony Galento, Yankee Stadium	KO	4
Sept. 20	Bob Pastor, Detroit	KO	11
	1940		
Feb. 9	Arturo Godoy, Madison Square Garden	W	15
Mar. 29	Johnny Paychek, Madison Square Garden	KO	2
June 20	Arturo Godoy, Yankee Stadium	KO	8
Dec. 16	Al McCoy, Boston	KO	6
	1941		
Jan. 31	Red Burman, Madison Square Garden	KO	5
Feb. 17	Gus Dorazio, Philadelphia	KO	2
Mar. 21	Abe Simon, Detroit	KO	13
Apr. 8	Tony Musto, St. Louis	KO	9
May 23	Buddy Baer, Washington D. C.	W disq.	7
June 18	Billy Conn, Polo Grounds	KO	13
Sept. 29	Lou Nova, Polo Grounds	KO	6
	1942		
Jan. 9	Buddy Baer, Madison Square Garden	KO	1
Mar. 27	Abe Simon, Madison Square Garden	KO	6
	1946		
June 19	Billy Conn, Yankee Stadium	KO	8
Sept. 18	Tami Mauriello, Yankee Stadium	KO	1
	1947		
Dec. 5	Joe Walcott, Madison Square Garden	W	15
	1948		
June 25	Joe Walcott, Yankee Stadium	KO	11
	1950		
Sept. 27	Ezzard Charles, Yankee Stadium	L	15

Hein Ten Hoff of Germany won the European heavyweight boxing championship when he beat Jack Gardner of England, making his first title defense, in a 15-round bout in Berlin on Sept. 23, 1951.

A. A. U. CHAMPIONSHIPS, 1950

(At Boston, April 9–11)

112 lb.—William Peacock, Philadelphia
118 lb.—Ernest DeJesus, Honolulu
126 lb.—Lennia Walters, Vancouver, B. C.
135 lb.—James Hackney, Philadelphia
147 lb.—Rudy Gwinn, Cleveland
160 lb.—Thomas Nelson, Philadelphia
175 lb.—Jack Boutilier, West Roxbury, Mass.
Heavyweight—Norvel Lee, Washington, D. C.
Team—Philadelphia

PROFESSIONAL WEIGHT LIMITS

	lbs.
Flyweight	112
Bantamweight	118
Featherweight	126
Lightweight	135
Welterweight	147
Middleweight	160
Light heavyweight	175
Heavyweight	over 175

Germans in Bobsled Sweep

Germany won its first post-war world championship when Andreas Ostler and Lorenz Nieberl captured the two-man bobsled crown at L'Alpe d'Huez, France, on Jan. 28, 1951. The Germans registered a sweep by taking the four-man title three days later. Stanley Benham of Lake Placid, N. Y., and Pat Martin of Massena, N. Y., finished second in the tandem test and Benham captained the runner-up American team in the four-man event.

At the United States Olympic trials at Lake Placid last March, Benham and his four-man crew set two world records. Racing from the mile mark on the Mount Van Hoevenberg run, the quartet lowered the single-heat mark to 1 minute 12:49 seconds and the four-run total to 4:51.90. The previous records were 1:12.58 and 4:53.27, both made in 1949.

OTHER 1951 CHAMPIONS

North American 2-man—Stan Benham–Pat Martin
A. A. U. 2-man—Larry McKillip–Henry Stearn, Saranac, N. Y.

ICE HOCKEY

ICE HOCKEY, by birth and upbringing a Canadian game, is an offshoot of field hockey. Some historians state that the first ice hockey game was played in Montreal in December, 1879, between two teams composed almost exclusively of McGill University students, but others assert that Kingston, Ont., or Halifax, N. S., were scenes of earlier hockey games. In the Montreal game of 1879 there were fifteen players on a side and they used an assortment of crude sticks to keep the puck in motion. Early rules allowed nine men on a side but the number was reduced to seven in 1886 and finally reduced to six, the standard of today.

The first governing body of the sport was the Amateur Hockey Association of Canada, organized in 1887. In the winter of 1894–95 a group of college students from the United States visited Canada, saw hockey played, became enthused over the game and introduced it as a winter sport when they returned home. This was the start of hockey in the United States. The first professional league was the International Hockey League that operated, strangely enough, not in Canada but in northern Michigan in 1904–06 and included as players such famous stars as Cyclone Taylor and Hod Stuart, later included in the Hockey Hall of Fame.

Until 1910, professionals and amateurs were allowed to play together on "mixed teams," but this arrangement ended with the formation of the first "big league," the National Hockey Association, in eastern Canada in 1910. The Pacific Coast League, to provide professional hockey in the West, was organized in 1911 with Seattle (and later other American cities) included in the circuit. The National Hockey League replaced the National Hockey Association in 1917. Boston, in 1924, was the first American city to join that circuit. The Stanley Cup, top trophy of hockey, was competed for by "mixed teams" from 1894 to 1910, thereafter by professionals.

Professional Statistics

Source: Herb Goren, Hockey Department, Madison Square Garden.

STANLEY CUP WINNERS

Emblematic of world professional championship.

1894—Montreal A. A. A.
1895—Montreal Victorias
1896—Winnipeg Victorias
1897—Montreal Victorias
1898—Montreal Victorias
1899—Montreal Victorias
1900—Montreal Shamrocks
1901—Winnipeg Victorias
1902—Montreal A. A. A.
1903—Ottawa Silver Seven
1904—Ottawa Silver Seven
1905—Ottawa Silver Seven
1906—Montreal Wanderers
1907—Kenora Thistles
1907—Mont. Wanderers*
1908—Montreal Wanderers
1909—Ottawa Senators
1910—Montreal Wanderers
1911—Ottawa Senators
1912—Quebec Bulldogs
1913—Quebec Bulldogs
1914—Toronto
1915—Vancouver Millionaires
1916—Montreal Canadiens
1917—Seattle Metropolitans
1918—Toronto Arenas
1919—Series unfinished†
1920—Ottawa Senators
1921—Ottawa Senators
1922—Toronto St. Patricks
1923—Ottawa Senators
1924—Montreal Canadiens
1925—Victoria Cougars
1926—Montreal Maroons
1927—Ottawa Senators
1928—N. Y. Rangers
1929—Boston Bruins
1930—Montreal Canadiens
1931—Montreal Canadiens
1932—Toronto Maple Leafs
1933—N. Y. Rangers
1934—Chicago Black Hawks
1935—Montreal Maroons
1936—Detroit Red Wings
1937—Detroit Red Wings
1938—Chicago Black Hawks
1939—Boston Bruins
1940—N. Y. Rangers
1941—Boston Bruins
1942—Toronto Maple Leafs
1943—Detroit Red Wings
1944—Montreal Canadiens
1945—Toronto Maple Leafs
1946—Montreal Canadiens
1947—Toronto Maple Leafs
1948—Toronto Maple Leafs
1949—Toronto Maple Leafs
1950—Detroit Red Wings
1951—Toronto Maple Leafs

* March.
† The Montreal Canadiens and Seattle, P.C.H.L. champions, had played five games at Seattle, Wash., when an influenza epidemic (which took the life of Joe Hall of the Canadiens) caused the Department of Health to stop the series. Each team won two games, with one contest ending in a tie.

FINAL 1950-51 NATIONAL HOCKEY LEAGUE STANDING

(Regular season)

	Detroit	Toronto	Montreal	Boston	New York	Chicago					Goals	
	W. L. T.	W. L. T.	W. L. T.	W. L. T.	W. L. T.	W. L. T.	W.	L.	T.	Pts.	For	Agst.
Detroit	.....	7 3 4	8 4 2	8 2 4	8 3 3	13 1 0	44	13	13	101	236	139
Toronto	3 7 4	.....	10 2 2	10 2 2	10 3 1	8 2 4	41	16	13	95	212	138
Montreal	4 8 2	2 10 2	.....	6 5 3	5 3 6	8 4 2	25	30	15	65	173	184
Boston	2 8 4	2 10 2	5 6 3	.....	4 2 8	9 4 1	22	30	18	62	178	197
New York	3 8 3	3 10 1	3 5 6	2 4 8	.....	9 2 3	20	29	21	61	169	211
Chicago	1 13 0	2 8 4	4 8 2	4 9 1	2 9 3	.....	13	47	10	36	171	280

NATIONAL HOCKEY LEAGUE

Stanley Cup Play-offs, 1951

(Figures in parentheses indicate number of victories)

FINAL

Series C

Toronto (4) vs. Montreal (1)

*April 11—Toronto 3, Montreal 2†
*April 14—Montreal 3, Toronto 2†
April 17—Toronto 2, Montreal 1†
April 19—Toronto 3, Montreal 2†
*April 21—Toronto 3, Montreal 2†

* At Toronto. † Overtime.

SEMIFINALS

Series A

Montreal (4) vs. Detroit (2)

March 27—Montreal 3, Detroit 2†
March 29—Montreal 1, Detroit 0†
March 31—Detroit 2, Montreal 0
April 3—Detroit 4, Montreal 1
April 5—Montreal 5, Detroit 2
April 7—Montreal 3, Detroit 2

Series B

Toronto (4) vs. Boston (1)

March 28—Boston 2, Toronto 0
March 31—Toronto 1, Boston 1 (tie)†
April 1—Toronto 3, Boston 0
April 3—Toronto 3, Boston 1
April 7—Toronto 4, Boston 1
April 8—Toronto 6, Boston 0

LEADING SCORERS IN NATIONAL LEAGUE

Regular Season

	Gms.	Gls.	As.	Pts.	PIM
Gordon Howe, Detroit	70	43	43	86	74
Maurice Richard, Montreal	65	42	24	66	97
Max Bentley, Toronto	67	21	41	62	34
Sid Abel, Detroit	69	23	38	61	30
Milt Schmidt, Boston	62	22	39	61	33
Ted Kennedy, Toronto	63	18	43	61	32
Ted Lindsay, Detroit	67	24	35	59	110
Tod Sloan, Toronto	70	31	25	56	105
Red Kelly, Detroit	70	17	37	54	24
Sid Smith, Toronto	70	30	21	51	10
Cal Gardner, Toronto	66	23	28	51	42
Roy Conacher, Chicago	70	26	24	50	16
Elmer Lach, Montreal	65	21	24	45	48
Woody Dumart, Boston	70	20	21	41	7
Bert Olmstead, Chicago-Montreal	54	18	23	41	50
Reg Sinclair, New York	70	18	21	39	70
Don Raleigh, New York	64	15	24	39	18
Johnny Peirson, Boston	70	19	19	38	43
Jim Peters, Detroit	68	17	21	38	14
Metro Prystal, Detroit	62	20	17	37	27
Harry Watson, Toronto	68	18	19	37	18
Pete Babando, Chicago	70	18	19	37	36
George Gee, Detroit	70	17	20	37	19
Jim Conacher, Chicago	52	10	27	37	16

Stanley Cup Play-offs

	Gms.	Gls.	As.	Pts.	PIM
Maurice Richard, Montreal	11	9	4	13	13
Max Bentley, Toronto	11	2	11	13	4
Sid Smith, Toronto	11	7	3	10	0
Ted Kennedy, Toronto	11	4	5	9	6
Tod Sloan, Toronto	11	4	5	9	18
Sid Abel, Detroit	6	4	3	7	0
Gordon Howe, Detroit	6	4	3	7	4
Joe Klukay, Toronto	11	4	3	7	0
Billy Reay, Montreal	11	3	3	6	10
Bert Olmstead, Montreal	11	2	4	6	9

1950-51 ALL-STAR SELECTIONS

	First Team	Second Team
G.	Sawchuk, Detroit	Rayner, New York
D.	Kelly, Detroit	Thomson, Toronto
D.	Quackenbush, Boston	Reise, Detroit
C.	Schmidt, Boston	Kennedy, Toronto
		Abel, Detroit
R. W.	Howe, Detroit	Richard, Montreal
L. W.	Lindsay, Detroit	Smith, Toronto

N. H. L. All-Star Game Record

1947–48—All-Stars 4, Toronto 3
1948–49—All-Stars 3, Toronto 1
1949–50—All-Stars 3, Toronto 1
1950–51—Detroit 7, All-Stars 1
1951–52—1st All-Stars 2, 2d All-Stars 2

1950–51 TROPHY WINNERS

Hart (most valuable player)—Milt Schmidt, Boston
Ross (leading scorer)—Gordie Howe, Detroit
Lady Byng (sportsmanship)—Len (Red) Kelly, Detroit
Calder (outstanding rookie)—Terry Sawchuk, Detroit
Vezina (leading goaltender)—Al Rollins, Toronto

HOCKEY'S HALL OF FAME

Kingston, Ontario

Donald H. Bain
Hobey Baker
Russell Bowie
Aubrey Clapper
Allan Davidson
Chas. G. Drinkwater
Charles Gardiner
Eddie Gerard
Mike Grant
Silas Griffis
E. C. (Newsy) Lalonde
Aurel Joliat
Joe Malone
Frank McGee
Howie Morenz
Frank Nighbor
Frank Patrick
Lester Patrick
Tom Phillips
Harvey Pulford
George Richardson
Arthur H. Ross
Eddie Shore
Hod Stuart
Fred (Cyclone) Taylor
Harry J. Trihey
Georges Vezina

PACIFIC COAST LEAGUE

Final 1950–51 Standing of the Clubs

(Regular season)

	W.	L.	T.	Pts.	Goals For	Goals Agst.
*Victoria Cougars	35	20	15	85	250	216
New Westminster Royals	38	24	8	84	267	205
Tacoma Rockets	27	26	17	71	219	222
Portland Eagles	30	32	8	68	266	255
Seattle Ironmen	23	36	11	57	214	249
Vancouver Canucks	19	34	17	55	216	285

* Won play-offs.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Eddie Dorohoy, Victoria	68	29	58	87	64
Ken Ullyot, New Westminster	70	39	47	86	6
Walt Samanski, Portland	70	33	49	82	16
Joe Bell, Seattle	63	46	32	78	32
Eddie Mazur, Victoria	70	43	30	73	41
Rudy Filion, Seattle	65	22	51	73	4

AMERICAN LEAGUE

Final 1950–51 Standing of the Clubs

(Regular season)

EASTERN DIVISION

	W.	L.	T.	Pts.	Goals For	Goals Agst.
Buffalo Bisons	40	26	4	84	309	284
Hershey Bears	38	28	4	80	256	242
Springfield Indians	27	37	6	60	268	254
Providence Reds	24	41	5	53	247	303
*New Haven Eagles	5	23	0	10	74	154

* Disbanded Dec. 10, 1950.

WESTERN DIVISION

	W.	L.	T.	Pts.	Goals For	Goals Agst.
†Cleveland Barons	44	22	5	93	281	221
Indianapolis Caps	38	29	3	79	287	255
Pittsburgh Hornets	31	33	7	69	212	177
St. Louis Flyers	32	34	4	68	233	252
Cincinnati Mohawks	28	34	8	64	203	228

† Won play-offs.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Ab DeMarco, Buffalo	64	37	76	113	35
Grant Warwick, Buffalo	65	34	65	99	43
Jack McGill, Providence	69	29	69	98	58
Fred Thurier, Cleveland	64	32	63	95	19
Fred Glover, Indianapolis	69	48	36	84	106
Max McNab, Indianapolis	70	36	48	84	8

Champions

1941—Cleveland
1942—Indianapolis
1943—Buffalo
1944—Buffalo
1945—Cleveland
1946—Buffalo
1947—Hershey
1948—Cleveland
1949—Providence
1950—Indianapolis
1951—Cleveland

UNITED STATES LEAGUE

Final 1950–51 Standing of the Clubs

(Regular season)

	W.	L.	T.	Pts.	Goals For	Goals Agst.
*Omaha Knights	43	17	4	90	306	211
St. Paul Saints	33	26	5	71	213	186
Denver Falcons	31	31	2	64	233	232
Tulsa Oilers	30	31	3	63	248	237
Kansas City Mohawks	22	36	6	50	231	287
Milwaukee Sea Gulls	20	38	6	46	202	280

* Won play-offs.

Leading Scorers

(Regular season)

	Gms.	Gls.	As.	Pts.	PIM
Lloyd Haldorsen, Tulsa	62	27	67	94	38
Cal Stearns, Kansas City	64	28	64	92	30
Ike Hildebrand, Kansas City	63	42	49	91	67
George Agar, Denver	64	31	51	82	65
Frank O'Grady, Omaha	64	32	49	81	62
Bert Giesebrecht, Omaha	64	38	40	78	75
Ian MacKintosh, St. Paul	64	39	38	77	82

Champions

1946—Kansas City
1947—Kansas City
1948—Houston
1949—St. Paul
1950—Minneapolis
1951—Omaha

OTHER CHAMPIONS, 1951

Canadian

Alexander Cup—Valleyfield Braves
Allan Cup (senior amateur)—Owen Sound Mercurys
Memorial Cup (junior amateur)—Barrie Flyers
Intercollegiate—Montreal

The Crookston (Minn.) Pirates beat the New York Metropolitans, 6 to 4, in the final of the 1951 national amateur hockey championship.

Amateur Ice Hockey

A. H. A. OF THE U. S.

Senior Open Champion—Toledo Mercurys

EASTERN LEAGUE

	W.	L.	T.	Pts.	Goals For	Goals Agst.
Johnstown Jets	26	25	3	55	195	194
Boston Olympics	25	24	5	55	187	191
*Atlantic City Sea Gulls	23	24	7	53	231	218
New York Rovers	22	23	9	53	168	178

* Won play-offs.

INTERNATIONAL LEAGUE

	W.	L.	T.	Pts.	Goals For	Goals Agst.
Grand Rapids Rockets	39	11	6	84	274	165
*Toledo Mercurys	35	15	6	76	290	174
Chatham Maroons	25	23	4	59	211	215
Sarnia Sailors	24	19	9	59	226	191
Detroit Auto Club	10	32	10	31	136	238
Detroit Hettche	6	39	7	19	112	266

* Won play-offs. Chatham won two 4-point games and tied one. Sarnia won one 4-point game. Detroit Auto Club tied one 4-point game.

METROPOLITAN (NEW YORK) LEAGUE

	W.	L.	T.	Pts.	Goals For	Goals Agst.
Manhattan Arrows	28	7	1	57	170	102
Sands Point Tigers	21	12	3	45	152	113
*Brooklyn Torpedoes	9	23	4	22	100	152
Jamaica Hawks	7	23	6	20	93	148

* Won play-offs.

1951 WORLD TITLE TOURNAMENT

(Conducted by International Ice Hockey Federation at Paris, France)

Final Standing of the Teams

	Won	Lost	Tied	Points
Canada	6	0	0	12
*Sweden	5	1	0	10
Switzerland	5	1	0	10
Norway	2	4	0	4
†Great Britain	1	5	1	3
United States	1	5	1	3
Finland	1	5	0	2

* Awarded second place on better-goal average.
† Awarded fifth place on same basis.

U. S. Intercollegiate Champions

N. C. A. A.—Michigan
Pentagonal League—Brown

CONTRACT BRIDGE, 1951

Source: The American Contract Bridge League

SUMMER NATIONAL TOURNAMENT

Master pairs—Peter Leventritt–Richard Kahn, New York

Master team-of-four—Helen Sobel, Myron Fields, New York; Charles Goren, Sidney Silodor, Philadelphia

Master mixed team—Mrs. Lewis M. Jaeger, Ruth Sherman, Leo Roet, Richard Kahn, New York

Men's national pairs—Emanuel Hochfeld–M. Q. Ellenby, Chicago

Women's national pairs—Mrs. Edward K. Minear, Danville, Ill.–Mrs. R. A. Dunphy, Salem, N. J.

Non-master team-of-four—Dr. and Mrs. S. M. Transus, Hanover, Pa.; Mr. and Mrs. C. N. Lovenberg, Providence

BASKETBALL

BASKETBALL may be unique in sports. It is one game concerning which it is safe to state when, where and how it originated. In the winter of 1891–92, Dr. James Naismith, an instructor in the Y.M.C.A. Training College (now Springfield College) at Springfield, Mass., deliberately invented the game of basketball in order to provide indoor exercise and competition for the students between the closing of the football season and the opening of the baseball season. He affixed peach baskets overhead on the walls at opposite ends of the gymnasium and, with an association (soccer) football, organized teams to play his new game in which the purpose was to toss the ball into one basket and prevent, as far as possible, the opponents from tossing the ball into the other basket. Fundamentally, the game is the same today, though there have been some improvements in equipment and many changes in the rules.

Because Dr. Naismith had eighteen available players when he invented the game, the first rule was: "There shall be nine players on each side." Later the number of players became optional, depending upon the size of the available court, but the five-player standard was adopted when the game spread over the country. United States soldiers introduced the game in Europe in World War I and, being taken up by foreign nations, it soon became a world-wide sport. An odd point is that, though it is still chiefly an indoor game in the United States, in other countries it flourishes almost entirely outdoors.

National Collegiate A. A. Champions

1939—Oregon	1945—Oklahoma A & M
1940—Indiana	1946—Oklahoma A & M
1941—Wisconsin	1947—Holy Cross
1942—Stanford	1948—Kentucky
1943—Wyoming	1949—Kentucky
1944—Utah	1950—C.C.N.Y.
	1951—Kentucky

National Invitation Champions
(Madison Square Garden Tourney)

1938—Temple	1945—DePaul
1939—Long Island U.	1946—Kentucky
1940—Colorado	1947—Utah
1941—Long Island U.	1948—St. Louis
1942—West Virginia	1949—San Francisco
1943—St. John's (Bklyn.)	1950—C.C.N.Y.
1944—St. John's (Bklyn.)	1951—Brigham Young

FINAL 1950-51 CONFERENCE STANDINGS

Eastern League

	W.	L.		W.	L.
Columbia	12	0	Yale	4	8
Cornell	10	2	Harvard	3	9
Pennsylvania	7	5	Dartmouth	1	11
Princeton	5	7			

Western

	W.	L.		W.	L.
Illinois	13	1	Wisconsin	7	7
Indiana	12	2	Michigan State	5	9
Iowa	9	5	Purdue	4	10
Minnesota	7	7	Michigan	3	11
Northwestern	7	7	Ohio State	3	11

Missouri Valley

	W.	L.		W.	L.
Okla. A. & M.	12	2	Wichita	5	9
Bradley	11	3	Drake	4	10
St. Louis	11	3	Tulsa	4	10
Detroit	7	7	Houston	2	12

Pacific Coast

NORTHERN DIVISION	W.	L.	SOUTHERN DIVISION	W.	L.
*Washington	11	5	†U.C.L.A.	8	4
Oregon	10	6	So. California	8	4
Washington St.	7	9	Stanford	5	7
Idaho	6	10	California	3	9
Oregon State	6	10			

* Won conference title. † Won divisional play-off.

Big Seven

	W.	L.		W.	L.
Kansas State	11	1	Nebraska	4	8
Kansas	8	4	Iowa State	3	9
Missouri	8	4	Colorado	2	10
Oklahoma	6	6			

Southwest

	W.	L.		W.	L.
Texas	8	4	So. Methodist	6	6
Texas A. & M.	8	4	Baylor	3	9
Texas Christian	8	4	Rice	2	10
Arkansas	7	5			

OTHER COLLEGE CHAMPIONS, 1951

Southeastern Conference—Kentucky
Southern Conference—No. Carolina State
Skyline Six Conference—Brigham Young
Border Conference—Arizona
Central A. A.—North Carolina College, Durham (regular season); Virginia Union (tournament)
National Assn. (N.A.I.B.)—Hamline
National Catholic—St. Francis (Brooklyn)
Mason-Dixon Conference—American Univ.
Rocky Mountain Conference—Montana State
National Junior—Tyler (Texas)
Canadian—Western Ontario

A. A. U. CHAMPIONS, 1951

Men—Stewart Chevrolets, San Francisco
Women—Hanes Hosiery, Winston-Salem, N. C.

The United States basketball team, composed of members of the Oakland (Calif.) Blue and Gold Nuggets and Indiana State's 1950 N. A. I. B. champions, won the 1951 Pan-American Games championship by defeating Argentina, 57–51.

Professional Basketball

NATIONAL BASKETBALL ASSOCIATION

Final 1950-51 Standing of the Clubs

(Regular season)

EASTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Philadelphia Warriors	40	26	.606	85.4
Boston Celtics	39	30	.565	85.2
New York Knickerbockers	36	30	.545	85.8
Syracuse Nationals	32	34	.485	86.1
Baltimore Bullets	21	42	.364	82.0
*Washington Capitols	10	25	.286	81.2

* Disbanded.

WESTERN DIVISION

	Won	Lost	Pct.	Avg. pts. per game
Minneapolis Lakers	44	24	.647	85.3
Rochester Royals	41	27	.603	84.6
Fort Wayne Pistons	32	36	.471	84.1
Indianapolis Olympians	31	37	.456	81.7
Tri-Cities Blackhawks	25	43	.368	84.3

Eastern Division Play-offs

Series A—New York beat Boston, 2 games to 0.
Series A—Syracuse beat Philadelphia, 2 games to 0.
Series B—New York beat Syracuse, 3 games to 2.

Western Division Play-offs

Series A—Rochester beat Ft. Wayne, 2 games to 1.
Series A—Minneapolis beat Indianapolis, 2 games to 1.
Series B—Rochester beat Minneapolis, 3 games to 1.

Championship Final

*April 7—Rochester 92, New York 65.
*April 8—Rochester 99, New York 84.
April 11—Rochester 78, New York 77.
April 13—New York 79, Rochester 73.
*April 15—New York 92, Rochester 89.
April 18—New York 80, Rochester 73.
*April 21—New York 79, New York 75.

* At Rochester.

FINAL STANDING OF THE CLUBS

	Won	Lost	Pct.
Rochester Royals	4	3	.571
New York Knickerbockers	3	4	.429

The Eastern team beat the Western Division squad, 111–94, in the first professional all-star game of the National Basketball Association last March in Boston.

Leading Scorers

(Regular Season)

	Gms.	Gls.	Fls.	Pts.
George Mikan, Minneapolis	68	678	576	1932
Alex Groza, Indianapolis	66	492	445	1429
Ed Macauley, Boston	68	459	466	1384
Joe Fulks, Philadelphia	66	429	378	1236
Frank Brian, Tri-Cities	68	363	413	1139
Paul Arizin, Philadelphia	65	352	417	1121
Dolph Schayes, Syracuse	66	332	457	1121
Ralph Beard, Indianapolis	66	409	293	1111
Arnie Risen, Rochester	66	377	323	1077
Dike Eddleman, Tri-Cities	68	398	244	1040
Fred Schaus, Fort Wayne	68	312	404	1028
Vince Boryla, New York	66	352	278	982
Bob Davies, Rochester	63	326	303	955
Larry Foust, Fort Wayne	68	327	261	915
Vern Mikkelsen, Minneapolis	64	359	186	904
Fred Scolari, Wash.-Syr.	66	302	279	883
Ken Murray, Balt.-Ft. W.	66	301	248	850
George Ratkovicz, Syracuse	66	264	321	849
Harry Gallatin, New York	66	293	259	845

AMERICAN LEAGUE

Source: John J. O'Brien, President, American Basketball League

Final 1950-51 Standing of the Clubs

(No postseason play-offs held)

	Won	Lost	Pct.	Av. pts. per game
Scranton	28	8	.778	78.9
Wilkes-Barre	28	11	.718	84.3
Paterson	21	16	.568	81.0
Bridgeport	18	15	.545	74.8
Utica	17	22	.436	79.3
Saratoga	5	25	.167	78.2
Carbondale	4	24	.143	77.3

Leading Scorers

	Gms.	Gls.	Fls.	Pts.
Ezersky, Wilkes-Barre	39	242	234	718
Walthour, Saratoga	29	201	185	587
Rothenberg, Paterson	36	163	152	478
Bill Chanecka, Wilkes-Barre	38	131	111	473
Kaufman, Paterson	37	182	106	470
Dambrot, Paterson	37	185	72	442
Rosenstein, Scranton	36	110	202	422
Crossin, Wilkes-Barre	31	165	81	411
Kassler, Scranton	36	148	114	410
Colone, W-Barre–Carb.	23	150	107	407

AMERICAN LEAGUE CHAMPIONS

1926—Cleveland Rosenblums
1927—Brooklyn Original Celtics
1928—Brooklyn Original Celtics
1929—Cleveland Rosenblums
1930—Cleveland Rosenblums
1931—Brooklyn Visitations
1932—No competition
1933—No competition
1934—Philadelphia Hebrews
1935—Brooklyn Visitations
1936—Philadelphia Hebrews
1937—Philadelphia Hebrews
1938—Jersey Reds
1939—New York Jewels
1940—Philadelphia Sphas
1941—Philadelphia Sphas
1942—Wilmington
1943—Philadelphia Sphas
1944—Wilmington Bombers
1945—Philadelphia Sphas
1946—Baltimore Bullets
1947—Trenton Tigers
1948—Wilkes-Barre Barons
1949—Wilkes-Barre Barons
1950—Scranton Miners
1951—Scranton Miners

HANDBALL, 1951

National A. A. U. Champions

4-wall singles—Joe Brady, San Francisco Olympic Club
4-wall doubles—William Keays–Joe Brady, Olympic Club
3-wall singles—Arthur Locker, Trinity Club, Brooklyn
3-wall doubles—Morton Alexander–Vic Elmaleh, City A. C., New York

Amateur Handball Union

4-wall singles—Walter Plekan, Buffalo, N. Y.
4-wall doubles—Frank Coyle–Bill Baier, Chicago
3-wall singles—Vic Hershkowitz, Brooklyn
3-wall doubles—Frank Gluckler–Marshall Lehrer, New York

Y. M. C. A.

4-wall singles—Sam Sauer, Buffalo, N. Y.
4-wall doubles—Leonard Meldman–Paul Merlo, Detroit

LAWN TENNIS

LAWN TENNIS is a comparatively modern modification of the ancient game of court tennis. Major Walter Clopton Wingfield thought that something like court tennis might be played outdoors on lawns and in December, 1873, at Nantclwyd, Wales, he introduced his new game under the name of *Sphairistike* at a lawn party. The game was a success and spread rapidly, but the name was a total failure and almost immediately disappeared when all the players and spectators began to refer to the new game as "lawn tennis." In the early part of 1874 a young lady named Mary Ewing Outerbridge returned from Bermuda to New York, bringing with her the implements and necessary equipment of the new game that she had obtained from a British Army supply store in Bermuda. Miss Outerbridge and friends played the first game of lawn tennis in the United States on the grounds of the Staten Island Cricket and Baseball Club in the spring of 1874.

For a few years the new game went along in haphazard fashion under varying rules. Tennis balls were of no standard size or texture. The nets were set at different heights up to 5 feet on the side and 4 feet in the middle. Some courts were marked out in hour-glass shape, narrow in the middle and wide at both ends. But about 1880 standard measurements for the court and standard equipment within definite limits became the rule. In 1881 the United States Lawn Tennis Association was formed and conducted the first national championship at Newport, R. I. The international matches for the Davis Cup began with a series between the British and United States players on the courts of the Longwood Cricket Club, Chestnut Hill, Mass., in 1900, with the home players winning.

Lawn Tennis Statistics

Source: The *Official U.S.L.T.A. Yearbook and Tennis Guide.*

DAVIS CUP CHALLENGE ROUND RESULTS

MEN

No matches in 1901, 1910, 1915–18, and 1940–45.

Year	Result	Where played
1900	United States 5, British Isles 0	Chestnut Hill
1902	United States 3, British Isles 2	Brooklyn
1903	British Isles 4, United States 1	Chestnut Hill
1904	British Isles 5, Belgium 0	Wimbledon
1905	British Isles 5, United States 0	Wimbledon
1906	British Isles 5, United States 0	Wimbledon
1907	Australasia 3, British Isles 2	Wimbledon
1908	Australasia 3, United States 2	Melbourne
1909	Australasia 5, United States 0	Sydney
1911	Australasia 5, United States 0	Christchurch
1912	British Isles 3, Australasia 2	Melbourne
1913	United States 3, British Isles 2	Wimbledon
1914	Australasia 3, United States 2	Forest Hills
1919	Australasia 4, British Isles 1	Sydney
1920	United States 5, Australasia 0	Auckland
1921	United States 5, Japan 0	Forest Hills
1922	United States 4, Australasia 1	Forest Hills
1923	United States 4, Australasia 1	Forest Hills
1924	United States 5, Australasia 0	Philadelphia
1925	United States 5, France 0	Philadelphia
1926	United States 4, France 1	Philadelphia
1927	France 3, United States 2	Philadelphia
1928	France 4, United States 1	Paris
1929	France 3, United States 2	Paris
1930	France 4, United States 1	Paris
1931	France 3, Great Britain 2	Paris
1932	France 3, United States 2	Paris
1933	Great Britain 3, France 2	Paris
1934	Great Britain 4, United States 1	Wimbledon
1935	Great Britain 5, United States 0	Wimbledon
1936	Great Britain 3, Australia 2	Wimbledon
1937	United States 4, Great Britain 1	Wimbledon
1938	United States 3, Australia 2	Philadelphia
1939	Australia 3, United States 2	Haverford
1946	United States 5, Australia 0	Melbourne
1947	United States 4, Australia 1	Forest Hills
1948	United States 5, Australia 0	Forest Hills
1949	United States 4, Australia 1	Forest Hills
1950	Australia 4, United States 1	Forest Hills

WIGHTMAN CUP RECORD

WOMEN

Year	Result	Where played
1923	United States 7, England 0	Forest Hills
1924	England 6, United States 1	Wimbledon
1925	England 4, United States 3	Forest Hills
1926	United States 4, England 3	Wimbledon
1927	United States 5, England 2	Forest Hills
1928	England 4, United States 3	Wimbledon
1929	United States 4, England 3	Forest Hills
1930	England 4, United States 3	Wimbledon
1931	United States 5, England 2	Forest Hills
1932	United States 4, England 3	Wimbledon
1933	United States 4, England 3	Forest Hills
1934	United States 5, England 2	Wimbledon
1935	United States 4, England 3	Forest Hills
1936	United States 4, England 3	Wimbledon
1937	United States 6, England 1	Forest Hills
1938	United States 5, England 2	Wimbledon
1939	United States 5, England 2	Forest Hills
1940–45	No matches	
1946	United States 7, England 0	Wimbledon
1947	United States 7, England 0	Forest Hills
1948	United States 6, England 1	Wimbledon
1949	United States 7, England 0	Haverford
1950	United States 7, England 0	Wimbledon
1951	United States 6, England 1	Longwood

UNITED STATES CHAMPIONS

Men's Singles

1881 Richard D. Sears
1882 Richard D. Sears
1883 Richard D. Sears
1884 Richard D. Sears
1885 Richard D. Sears
1886 Richard D. Sears
1887 Richard D. Sears
1888 Henry W. Slocum, Jr.
1889 Henry W. Slocum, Jr.
1890 Oliver S. Campbell
1891 Oliver S. Campbell
1892 Oliver S. Campbell
1893 Robert D. Wrenn
1894 Robert D. Wrenn
1895 Fred H. Hovey
1896 Robert D. Wrenn
1897 Robert D. Wrenn
1898 Malcolm D. Whitman
1899 Malcolm D. Whitman
1900 Malcolm D. Whitman
1901 William A. Larned
1902 William A. Larned
1903 Hugh L. Doherty
1904 Holcombe Ward
1905 Beals C. Wright
1906 William J. Clothier
1907 William A. Larned
1908 William A. Larned
1909 William A. Larned
1910 William A. Larned
1911 William A. Larned
1912 Maurice E. McLoughlin*
1913 Maurice E. McLoughlin
1914 R. N. Williams, II
1915 William Johnston
1916 R. N. Williams, II
1917 R. Lindley Murray†
1918 R. Lindley Murray
1919 William Johnston
1920 William T. Tilden, II
1921 William T. Tilden, II
1922 William T. Tilden, II
1923 William T. Tilden, II
1924 William T. Tilden, II
1925 William T. Tilden, II
1926 Jean Rene Lacoste
1927 Jean Rene Lacoste
1928 Henri Cochet
1929 William T. Tilden, II
1930 John H. Doeg
1931 H. Ellsworth Vines, Jr.
1932 H. Ellsworth Vines, Jr.
1933 Fred J. Perry
1934 Fred J. Perry
1935 Wilmer L. Allison
1936 Fred J. Perry
1937 J. Donald Budge
1938 J. Donald Budge
1939 Robert L. Riggs
1940 Donald McNeill
1941 Robert L. Riggs
1942 Frederick R. Schroeder, Jr
1943 Lt. (jg) Joseph R. Hunt
1944 Sgt. Frank A. Parker
1945 Sgt. Frank A. Parker
1946 John A. Kramer
1947 John A. Kramer
1948 Richard Gonzales
1949 Richard Gonzales
1950 Arthur Larsen
1951 Frank Sedgman

* Challenge round abandoned. † Patriotic tourney.

Men's Doubles

1881 C. M. Clark—F. W. Taylor
1882 R. D. Sears—James Dwight
1883 R. D. Sears—James Dwight
1884 R. D. Sears—James Dwight
1885 R. D. Sears—J. S. Clark
1886 R. D. Sears—James Dwight
1887 R. D. Sears—James Dwight
1888 O. S. Campbell—V. G. Hall
1889 H. W. Slocum, Jr.—H. A. Taylor
1890 V. G. Hall—Clarence Hobart
1891 O. S. Campbell—R. P. Huntington, Jr.
1892 O. S. Campbell—R. P. Huntington, Jr.
1893 Clarence Hobart—F. H. Hovey
1894 Clarence Hobart—F. H. Hovey
1895 M. G. Chace—R. D. Wrenn
1896 C. B. Neel—S. R. Neel
1897 L. E. Ware—G. P. Sheldon, Jr.
1898 L. E. Ware—G. P. Sheldon, Jr.
1899 Holcombe Ward—D. F. Davis
1900 Holcombe Ward—D. F. Davis
1901 Holcombe Ward—D. F. Davis
1902 R. F. Doherty—H. L. Doherty
1903 R. F. Doherty—H. L. Doherty
1904 Holcombe Ward—B. C. Wright
1905 Holcombe Ward—B C. Wright
1906 Holcombe Ward—B. C. Wright
1907 H. H. Hackett—F. B. Alexander
1908 H. H. Hackett—F. B. Alexander
1909 H. H. Hackett—F. B. Alexander
1910 H. H. Hackett—F. B. Alexander
1911 R. D. Little—G. F. Touchard
1912 M. E. McLoughlin—T. C. Bundy
1913 M. E. McLoughlin—T. C. Bundy
1914 M. E. McLoughlin—T. C. Bundy
1915 William Johnston—C. J. Griffin
1916 William Johnston—C. J. Griffin
1917 F. B. Alexander—H. A. Throckmorton*
1918 W. T. Tilden, II—Vincent Richards†
1919 N. E. Brookes—G L. Patterson
1920 William Johnston—C. J. Griffin
1921 W. T. Tilden, II—Vincent Richards
1922 W. T. Tilden, II—Vincent Richards
1923 W. T. Tilden, II—B. I. C. Norton
1924 H. O. Kinsey—R. G. Kinsey
1925 Vincent Richards—R. N. Williams, II
1926 Vincent Richards—R. N. Williams, II
1927 W. T. Tilden, II—F. T. Hunter
1928 G. M. Lott, Jr.—J. F. Hennessey
1929 G. M. Lott, Jr.—J. H. Doeg
1930 G. M. Lott, Jr.—J. H. Doeg
1931 W. L. Allison—John Van Ryn
1932 H. E. Vines, Jr.—Keith Gledhill
1933 G. M. Lott, Jr.—L. R. Stoefen
1934 G. M. Lott, Jr.—L. R. Stoefen
1935 W. L. Allison—John Van Ryn
1936 J. D. Budge—C. G. Mako
1937 Baron G. von Cramm—Henner Henkel
1938 J. D. Budge—C. G. Mako
1939 A. K. Quist—J. E. Bromwich
1940 J. A. Kramer—F. R. Schroeder, Jr.
1941 J. A. Kramer—F. R. Schroeder, Jr.
1942 Lt. (jg) Gardnar Mulloy—W. F. Talbert
1943 J. A. Kramer—Cpl. F. A. Parker
1944 Lt. Don McNeill—a/c Robert Falkenburg
1945 Lt. Gardnar Mulloy—W. F. Talbert
1946 Gardnar Mulloy—W. F. Talbert
1947 J. A. Kramer—F. R. Schroeder, Jr.
1948 Gardnar Mulloy—W. F. Talbert
1949 John Bromwich—William Sidwell
1950 John Bromwich—Frank Sedgman
1951 Frank Sedgman—Kenneth McGregor

* Patriotic tournament. † Challenge round abandoned.

U. S. Indoor Champions, 1951

Singles—William Talbert, New York
Women's singles—Nancy Chaffee, Ventura, Calif.
Doubles—Don McNeill, Searingtown, N. Y.-William Talbert
Women's doubles—Mrs. Richard A. Buck, Boston-Nancy Chaffee
Mixed doubles—Beverly Baker, Santa Monica, Calif.-Straight Clark, Pasadena, Calif.

U. S. Professional

Singles—Francisco Segura, Guayaquil, Ecuador
Doubles—Richard Gonzales, Los Angeles-Segura

French International Champions

Singles—Jaroslav Drobny, Egypt
Women's singles—Shirley Fry, Akron, Ohio
Doubles—Frank Sedgman-Ken McGregor, Australia
Women's doubles—Doris Hart, Coral Gables, Fla.-Shirley Fry
Mixed doubles—Doris Hart-Frank Sedgman

Public Parks

Singles—Wade Herren, Birmingham, Ala.
Women's singles—Mrs. Mary Arnold Prentiss, San Bernardino, Calif.

Women's Singles

1887 Ellen F. Hansell
1888 Bertha L. Townsend
1889 Bertha L. Townsend
1890 Ellen C. Roosevelt
1891 Mabel E. Cahill
1892 Mabel E. Cahill
1893 Aline M. Terry
1894 Helen R. Helwig
1895 Juliette P. Atkinson
1896 Elisabeth H. Moore
1897 Juliette P. Atkinson
1898 Juliette P. Atkinson
1899 Marion Jones
1900 Myrtle McAteer
1901 Elisabeth H. Moore
1902 Marion Jones
1903 Elisabeth H. Moore
1904 May G. Sutton
1905 Elisabeth H Moore
1906 Helen Homans
1907 Evelyn Sears
1908 Mrs. Maud Bargar-Wallach
1909 Hazel V. Hotchkiss
1910 Hazel V. Hotchkiss
1911 Hazel V. Hotchkiss
1912 Mary K. Browne
1913 Mary K. Browne
1914 Mary K. Browne
1915 Molla Bjurstedt
1916 Molla Bjurstedt
1917 Molla Bjurstedt*
1918 Molla Bjurstedt†
1919 Mrs. George W. Wightman
1920 Mrs. Franklin I. Mallory
1921 Mrs. Franklin I. Mallory
1922 Mrs. Franklin I. Mallory
1923 Helen N. Wills
1924 Helen N. Wills
1925 Helen N. Wills
1926 Mrs. Franklin I. Mallory
1927 Helen N. Wills
1928 Helen N. Wills
1929 Helen N. Wills
1930 Betty Nuthall
1931 Mrs. Helen W. Moody
1932 Helen Jacobs
1933 Helen Jacobs
1934 Helen Jacobs
1935 Helen Jacobs
1936 Alice Marble
1937 Anita Lizana
1938 Alice Marble
1939 Alice Marble
1940 Alice Marble
1941 Mrs. Sarah P. Cooke
1942 Pauline M. Betz
1943 Pauline M. Betz
1944 Pauline M. Betz
1945 Mrs. Sarah P. Cooke
1946 Pauline M. Betz
1947 A. Louise Brough
1948 Mrs. M. O. du Pont
1949 Mrs. M. O. du Pont
1950 Mrs. M. O. du Pont
1951 Maureen Connolly

* Louise Hammond won patriotic tourney. † Challenge round abandoned.

Women's Doubles

1890 Ellen C. Roosevelt—Grace W. Roosevelt
1891 Mabel E. Cahill—Mrs. W. F. Morgan
1892 Mabel E. Cahill—A. M. McKinley
1893 Aline M. Terry—Hattie Butler
1894 Helen R. Helwig—J. P. Atkinson
1895 Helen R. Helwig—J. P. Atkinson
1896 E. H. Moore—J. P. Atkinson
1897 J. P. Atkinson—Kathleen Atkinson
1898 J. P. Atkinson—Kathleen Atkinson
1899 Jane W. Craven—Myrtle McAteer
1900 Edith Parker—Hallie Champlin
1901 J. P. Atkinson—Myrtle McAteer
1902 J. P. Atkinson—Marion Jones
1903 E. H. Moore—Carrie B. Neely
1904 May G. Sutton—Miriam Hall
1905 Helen Homans—Carrie B. Neely
1906 Mrs. L. S. Coe—Mrs. D. S. Platt
1907 Marie Weimer—Carrie B. Neely
1908 Evelyn Sears—Margaret Curtis
1909 Hazel V. Hotchkiss—Edith E. Rotch
1910 Hazel V. Hotchkiss—Edith E. Rotch
1911 Hazel V. Hotchkiss—Eleanora Sears
1912 Dorothy Green—Mary K. Browne
1913 Mary K. Browne—Mrs. R. H. Williams
1914 Mary K. Browne—Mrs. R. H. Williams
1915 Mrs. G. W Wightman—Eleanora Sears
1916 Molla Bjurstedt—Eleanora Sears
1917 Molla Bjurstedt—Eleanora Sears
1918 Marion Zinderstein—Eleanor Goss
1919 Marion Zinderstein—Eleanor Goss
1920 Marion Zinderstein—Eleanor Goss
1921 Mary K. Browne—Mrs. R. H. Williams
1922 Mrs. J. B. Jessup—Helen N. Wills
1923 Kathleen McKane—Mrs. B. C. Covell
1924 Mrs. G. W. Wightman—Helen N. Wills
1925 Mary K. Browne—Helen N. Wills
1926 Elizabeth Ryan—Eleanor Goss
1927 Mrs. L. A. Godfree—Ermyntrude Harvey
1928 Mrs. G. W. Wightman—Helen N. Wills
1929 Mrs. Phoebe Watson—Mrs. L. R. C. Michell
1930 Betty Nuthall—Sarah Palfrey
1931 Betty Nuthall—Mrs. E. B. Whittingstall
1932 Helen Jacobs—Sarah Palfrey
1933 Betty Nuthall—Freda James
1934 Helen Jacobs—Sarah Palfrey
1935 Helen Jacobs—Mrs. S. P. Fabyan
1936 Mrs. M. G. Van Ryn—Carolin Babcock
1937 Mrs. S. P. Fabyan—Alice Marble
1938 Mrs. S. P. Fabyan—Alice Marble
1939 Mrs. S. P. Fabyan—Alice Marble
1940 Mrs. S. P. Fabyan—Alice Marble
1941 Mrs. S. P. Cooke—Margaret Osborne
1942 A. Louise Brough—Margaret Osborne
1943 A. Louise Brough—Margaret Osborne
1944 A. Louise Brough—Margaret Osborne
1945 A. Louise Brough—Margaret Osborne
1946 A. Louise Brough—Margaret Osborne
1947 A. Louise Brough—Margaret Osborne
1948 A. Louise Brough—Mrs. Margaret O. du Pont
1949 A. Louise Brough—Mrs. Margaret O. du Pont
1950 A. Louise Brough—Mrs. Margaret O. du Pont
1951 Doris Hart—Shirley Fry

OTHER UNITED STATES TENNIS CHAMPIONS, 1951

Singles

Veterans'—Harold MacGuffin, New York
Women veterans'—Mrs. Richard A. Buck, Boston
Juniors'—Ted Rogers, Chevy Chase, Md.
Interscholastic—Herbert Browne, Dreher High, Columbia, S. C.
Boys'—Gerald Moss, Miami Beach, Fla.
Girls'—Anita Kanter, Santa Monica, Calif.

Doubles

Mixed—Frank Sedgman-Doris Hart
Veterans'—Sidney Adelstein, New York-Bernard Clinton, Dallas, Texas
Women veterans'—Mrs. Edward Pinkham, Newport, R. I.—Mrs. Richard A. Buck
Juniors'—Bill Quillian, Seattle-Don Flye, Tacoma, Wash.
Boys'—Myron Franks, Los Angeles-Albert Fernandez, La Jolla, Calif.
Interscholastic—Ted Rogers-Tim Cross, Landon School, Bethesda, Md.
Girls'—Elaine Lewicki, Hamtramck, Mich.-Bonnie McKay, Dayton, Ohio

Clay Courts

Singles—Tony Trabert, Cincinnati
Women's singles—Dorothy Head, Alameda, Calif.
Doubles—Hamilton Richardson, Baton Rouge, La.-Tony Trabert
Women's doubles—Mrs. Magda Rurac, Winnetka, Ill.-Mrs. Patricia C. Todd, La Jolla, Calif.

Hard Courts

Singles—Ted Schroeder, La Crescenta, Calif.
Women's singles—Mrs. Patricia C. Todd
Doubles—Harry Likas, San Francisco-Jerry De Witts, Oakland, Calif.
Women's doubles—Julia Sampson, San Marino, Calif.-Anita Kanter
Mixed doubles—Whitney Reed, Alameda, Calif.-Anita Kanter

Eastern Intercollegiate

Men—Harold McGrath, Syracuse
Women—Barbara Friedberg, Miami (Ohio)
Freshman—Pablo Eisenberg, Princeton
Team—Navy (29 pts.)

BRITISH LAWN TENNIS CHAMPIONS

Men's Singles

1877	S. W. Gore	1894	J. Pin	1910	A. F. Wilding	1930	W. T. Tilden, II
1878	P. F. Hadow	1895	W. Baddeley	1911	A. F. Wilding	1931	S. B. Wood
1879	J. T. Hartley	1896	H. S. Mahony	1912	A. F. Wilding	1932	H. E. Vines, Jr.
1880	J. T. Hartley	1897	R. F. Doherty	1913	A. F. Wilding	1933	J. H. Crawford
1881	W. Renshaw	1898	R. F. Doherty	1914	N. E. Brookes	1934	F. J. Perry
1882	W. Renshaw	1899	R. F. Doherty	1919	G. L. Patterson	1935	F. J. Perry
1883	W. Renshaw	1900	R. F. Doherty	1920	W. T. Tilden, II	1936	F. J. Perry
1884	W. Renshaw	1901	A. W. Gore	1921	W. T. Tilden, II	1937	J. D. Budge
1885	W. Renshaw	1902	H. L. Doherty	1922	G. L. Patterson*	1938	J. D. Budge
1886	W. Renshaw	1903	H. L. Doherty	1923	W. M. Johnston	1939	R. L. Riggs
1887	H. F. Lawford	1904	H. L. Doherty	1924	J. Borotra	1946	Yvon Petra
1888	E. Renshaw	1905	H. L. Doherty	1925	R. Lacoste	1947	John A. Kramer
1889	W. Renshaw	1906	H. L. Doherty	1926	J. Borotra	1948	R Falkenburg
1890	W. J. Hamilton	1907	N. E. Brookes	1927	H. Cochet	1949	F. R. Schroeder, Jr.
1891	W. Baddeley	1908	A. W. Gore	1928	R. Lacoste	1950	Budge Patty
1892	W. Baddeley	1909	A. W. Gore	1929	H. Cochet	1951	Richard Savitt
1893	J. Pin						

* Challenge round abandoned.

Men's Doubles

1879	L. R. Erskine—H. F. Lawford	1900	R. F. Doherty—H. L. Doherty	1925	J. Borotra—R. Lacoste
1880	W. Renshaw—E. Renshaw	1901	R. F. Doherty—H. L. Doherty	1926	H. Cochet—J. Brugnon
1881	W. Renshaw—E. Renshaw	1902	S. H. Smith—F. L. Riseley	1927	W. T. Tilden, II—F. T. Hunter
1882	J. T. Hartley—R. T. Richardson	1903	R. F. Doherty—H. L. Doherty	1928	H. Cochet—J. Brugnon
1883	C. W. Grinstead—C. E. Welldon	1904	R. F. Doherty—H. L. Doherty	1929	W. Allison—J. Van Ryn
1884	W. Renshaw—E. Renshaw	1905	R. F. Doherty—H. L. Doherty	1930	W. Allison—J. Van Ryn
1885	W. Renshaw—E. Renshaw	1906	S. H. Smith—F. L. Riseley	1931	G. M. Lott—J. Van Ryn
1886	W. Renshaw—E. Renshaw	1907	N. E. Brookes—A. F. Wilding	1932	J. Borotra—J. Brugnon
1887	P. Bowes-Lyon—H. W. W. Wilberforce	1908	A. F. Wilding—M. J. G. Ritchie	1933	J. Borotra—J. Brugnon
		1909	A. W. Gore—H. R. Barrett	1934	G. M. Lott—L. R. Stoefen
1888	W. Renshaw—E. Renshaw	1910	A. F. Wilding—M. J. G. Ritchie	1935	J. H. Crawford—A. K. Quist
1889	W. Renshaw—E. Renshaw	1911	M. Decugis—A. H. Gobert	1936	C. R. D. Tuckey—G. P. Hughes
1890	J. L. Pim—F. O. Stoker	1912	H. R. Barrett—C. P. Dixon	1937	J. D. Budge—C. Gene Mako
1891	W. Baddeley—H. Baddeley	1913	H. R. Barrett—C. P. Dixon	1938	J. D. Budge—C. Gene Mako
1892	H. S. Barlow—E. W. Lewis	1914	N. E. Brookes—A. F. Wilding	1939	R. L. Riggs—E. T. Cooke
1893	J. L. Pim—F. O. Stoker	1919	R. V. Thomas—P. O'Hara Wood	1946	J. A. Kramer—Tom Brown
1894	W. Baddeley—H. Baddeley	1920	R. N. Williams, II—C. S. Garland	1947	J. A. Kramer—R. Falkenburg
1895	W. Baddeley—H. Baddeley	1921	R. Lycett—M. Woosnam	1948	J. Bromwich—F. Sedgman
1896	W. Baddeley—H. Baddeley	1922	R. Lycett—J. O. Anderson*	1949	F. Parker—R. Gonzales
1897	R. F. Doherty—H. L. Doherty	1923	R. Lycett—L. A. Godfree	1950	J. Bromwich—A. Quist
1898	R. F. Doherty—H. L. Doherty	1924	V. Richards—F. T. Hunter	1951	F. Sedgman—K. McGregor
1899	R. F. Doherty—H. L. Doherty				

* Challenge round abandoned.

Women's Singles

1884	M. Watson	1899	Mrs. Hillyard	1914	Mrs. L. Chambers	1932	Mrs. F. S. Moody
1885	M. Watson	1900	Mrs. Hillyard	1915–18	No tournaments	1933	Mrs. F. S. Moody
1886	Miss Bingley	1901	Mrs. Sterry	1919	Mlle. Lenglen	1934	D. E. Round
1887	L. Dod	1902	M. E. Robb	1920	Mlle. Lenglen	1935	Mrs. F. S. Moody
1888	L. Dod	1903	Miss Douglas	1921	Mlle. Lenglen	1936	H. H. Jacobs
1889	Mrs. Hillyard	1904	Miss Douglas	1922	Mlle. Lenglen	1937	D. E. Round
1890	L. Rice	1905	M. Sutton	1923	Mlle. Lenglen	1938	Mrs. F. S. Moody
1891	L. Dod	1906	Miss Douglas	1924	K. McKane	1939	A. Marble
1892	L. Dod	1907	M. Sutton	1925	Mlle. Lenglen	1946	Pauline M. Betz
1893	L. Dod	1908	Mrs. Sterry	1926	Mrs. Godfree	1947	Margaret Osborne
1894	Mrs. Hillyard	1909	D. Boothby	1927	H. Wills	1948	A. Louise Brough
1895	C. Cooper	1910	Mrs. L. Chambers	1928	H. Wills	1949	A. Louise Brough
1896	C. Cooper	1911	Mrs. L. Chambers	1929	H. Wills	1950	A. Louise Brough
1897	Mrs. Hillyard	1912	Mrs. Larcombe	1930	Mrs. F. S. Moody	1951	Doris Hart
1898	C. Cooper	1913	Mrs. L. Chambers	1931	Frl. C. Aussen		

Women's Doubles

1913	Mrs. McNair—Miss Boothby	1927	Miss Ryan—H. Wills	1936	K. E. Stammers—F. James
1914	Miss Ryan—A. M. Morton	1928	Mrs. H. Watson—P. Saunders	1937	Mme. S. Mathieu—A. M. Yorke
1919	Mlle. Lenglen—Miss Ryan	1929	Mrs. H. Watson—Mrs. Michell	1938	A. Marble—Mrs. S. P. Fabyan
1920	Mlle. Lenglen—Miss Ryan	1930	Miss Ryan—Mrs. F. S. Moody	1939	A. Marble—Mrs. S. P. Fabyan
1921	Mlle. Lenglen—Miss Ryan	1931	Mrs. Shepherd-Barron—Mrs. Mudford King	1946	A. L. Brough—M. Osborne
1922	Mlle. Lenglen—Miss Ryan			1947	Doris Hart—Mrs. Pat Todd
1923	Mlle. Lenglen—Miss Ryan	1932	Mlle. D. Metaxa—Mlle. J. Sigart	1948	A. L. Brough—Mrs. M. O. du Pont
1924	Mrs. Wightman—H. Wills	1933	Miss Ryan—Mme. Mathieu	1949	A. L. Brough—Mrs. M. O. du Pont
1925	Mlle. Lenglen—Miss Ryan	1934	Miss Ryan—Mme. Mathieu	1950	A. L. Brough—Mrs. M. O. du Pont
1926	Miss Ryan—M. K. Browne	1935	K. E. Stammers—F. James	1951	Doris Hart—Shirley Fry

COURT TENNIS

Source: Allison Danzig, The New York *Times*.

National Champions

1892	Richard D. Sears, Boston A. A.
1893	Fiske Warren, Boston A. A.
1894–95	B. Spalding de Garmendia, R. and T. Club
1896	Lawrence M. Stockton, Boston A. A.
1897	George R. Fearing, Jr., Boston A. A.
1898–99	Lawrence M. Stockton, Boston A. A.
1900	Eustace H. Miles, England
1901–04	Joshua Crane, Boston A. A.
1905	Charles E. Sands, R. and T. Club
1906–17	Jay Gould, Philadelphia R. C.
1918–19	No tournaments
1920–25	Jay Gould, Philadelphia R. C.
1926	C. Suydam Cutting, R. and T. Club
1927	George Huband, England, and Chicago R. C.
1928–29	Hewitt Morgan, R. and T. Club
1930	Lord Aberdare, England
1931–32	William C. Wright, Philadelphia
1933	James H. Van Alen, R. and T. Club
1934–37	Ogden Phipps, R. and T. Club
1938	James H. Van Alen, R. and T. Club
1939	Ogden Phipps, R. and T. Club
1940	James H. Van Alen, R. and T. Club
1941	Alastair B. Martin, R. and T. Club
1942–45	No tournaments
1946	Robert Grant, III, R. and T. Club
1947	E. M. Beals, Jr., Boston
1948–49	Ogden Phipps, Roslyn, N. Y.
1950–51	Alastair B. Martin, R. and T. Club

RACQUETS

Source: Allison Danzig, The New York *Times*.

National Champions

1890	B. Spalding de Garmendia, N. Y. Racquet Court
1891	B. Spalding de Garmendia, R. and T. Club
1892	J. S. Tooker, R. and T. Club, Boston A. A.
1893–94	B. Spalding de Garmendia, R. and T. Club
1895	J. S. Tooker, R. and T. Club, Boston A. A.
1896–97	B. Spalding de Garmendia, R. and T. Club
1898	F. F. Rolland, Canada
1899	Quincy A. Shaw, Jr., Boston A. A.
1900	Eustace H. Miles, England
1901	Quincy A. Shaw, Jr., Boston A. A.
1902	Clarence H. Mackay, R. and T. Club
1903	Payne Whitney, R. and T. Club
1904	George H. Brooke, Philadelphia R. C.
1905	Lawrence Waterbury, R. and T. Club
1906	Percy D. Haughton, R. and T. Club
1907	Reginald Fincke, R. and T. Club
1908	Quincy A. Shaw, Jr., Boston T. and R. Club
1909	H. F. McCormick, University Club, Chicago
1910	Quincy A. Shaw, Jr., Boston T. and R. Club
1911–12	Reginald Fincke, R. and T. Club
1913–14	Lawrence Waterbury, R. and T. Club
1915	C. C. Pell, R. and T. Club and Tuxedo
1916	S. G. Mortimer, R. and T. Club and Tuxedo
1917	C. C. Pell, R. and T. Club and Tuxedo
1918–19	No tournaments
1920–22	C. C. Pell, R. and T. Club and Tuxedo
1923	S. G. Mortimer, R. and T. Club and Tuxedo
1924–25	C. C. Pell, R. and T. Club and Tuxedo
1926	S. G. Mortimer, R. and T. Club and Tuxedo
1927–28	C. C. Pell, R. and T. Club and Tuxedo
1929	H. D. Sheldon, R. and T. Club
1930	S. G. Mortimer, R. and T. Club and Tuxedo
1931–33	C. C. Pell, R. and T. Club and Tuxedo
1934	E. M. Edwards, Philadelphia R. C.
1935	H. D. Sheldon, R. and T. Club
1936	E. M. Edwards, Philadelphia R. C.
1937–39	Robert Grant, III, R. and T. Club
1940	Warren Ingersoll, III, Philadelphia R. C.
1941	Robert Grant, III, R. and T. Club
1942–45	No tournaments
1946	Robert Grant, III, R. and T. Club
1947	J. Richards Leonard, R. and T. Club
1948–51	Robert Grant, III, R. and T. Club

Tuxedo (N. Y.) Gold Racquet Winners

1904	—M. S. Barger, R. and T. Club
1905–07	—C. H. Mackay, R. and T. Club
1908	—J. G. Douglas, R. and T. Club
1909	—H. F. McCormick, Chicago Univ. Club
1910	—G. C. Clark, R. and T. Club
1911–12	—J. G. Douglas, R. and T. Club
1913	—H. F. McCormick, Chicago Univ. Club
1914–17	—C. C. Pell, R. and T. Club and Tuxedo
1918–20	—No tournaments
1921–23	—C. C. Pell, R. and T. Club and Tuxedo
1924	—S. G. Mortimer, R. and T. Club and Tuxedo
1925–27	—C. C. Pell, R. and T. Club and Tuxedo
1928	—S. G. Mortimer, R. and T. Club and Tuxedo
1929–30	—C. C. Pell, R. and T. Club and Tuxedo
1931	—S. G. Mortimer, R. and T. Club and Tuxedo
1932–33	—C. C. Pell, R. and T. Club and Tuxedo
1934	—J. R. Leonard, R. and T. Club
1935	—H. B. Sheldon, R. and T. Club
1936	—C. C. Pell, R. and T. Club and Tuxedo
1937–39	—R. Grant, III, R. and T. Club
1940	—J. R. Leonard, R. and T. Club
1941	—R. Grant, III, R. and T. Club
1942–45	—No tournaments
1946–47	—R. Grant, III, R. and T. Club
1948	—J. R. Leonard, R. and T. Club
1949–50	—R. Grant, III, R. and T. Club
1951	—R. A. A. Holt, London, England

OTHER CHAMPIONS, 1951

Court Tennis

National Open—Alastair Bradley Martin, Glen Head, N. Y.

National doubles—Esmond Martin, Brookville, N. Y.–Alastair B. Martin

Tuxedo Gold Racquet—Alastair B. Martin

Racquets

World—Jim Dear, London, England

National doubles—R. A. A. Holt–Kenneth Wagg, London, England

Canadian singles—Robert Grant, III, New York

Canadian doubles—F. F. De Rham, Jr., Tuxedo, N. Y.–J. Richards Leonard, New York

SQUASH RACQUETS

Source: United States Squash Racquets Association.

National Singles Champions

1907–08	John A. Miskey Overbrook G. C.
1909	W. L. Freeland, Germantown C. C.
1910	John A. Miskey, Overbrook G. C.
1911	F. S. White, Germantown C. C.
1912	Constantine Hutchins, Boston A. A.
1913	Mortimer L. Newhall, Germantown C. C.
1914	Constantine Hutchins, Boston T. and R. Club
1915–17	Stanley W. Pearson, Germantown C. C.
1918–19	No tournaments
1920	Charles C. Peabody, Union B. C., Boston
1921–23	Stanley W. Pearson, Philadelphia R. C.
1924	Gerald Roberts, Bath Club, London
1925	W. Palmer Dixon, Harvard University
1926	W. Palmer Dixon, R. and T. Club, N. Y.
1927	Myles P. Baker, Boston A. A.
1928	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.
1929	J. Lawrence Pool, Harvard Club, New York
1930	Herbert N. Rawlins, Jr., R. and T. Club, N. Y.
1931	J. Lawrence Pool, Harvard Club, New York
1932	Beekman Pool, Harvard University
1933	Beekman Pool, Harvard Club, New York
1934	Neil J. Sullivan, Germantown C. C.
1935	Donald Strachan, Philadelphia C. C.
1936	Germain G. Glidden, Harvard University
1937–38	Germain G. Glidden, Harvard Club, New York
1939	Donald Strachan, Merion C. C.
1940	A. Willing Patterson, Philadelphia R. C.
1941–42	Charles W. Brinton, Princeton University
1943–45	No tournaments
1946–47	Charles W. Brinton, Philadelphia
1948	Stanley W Pearson, Jr., Philadelphia
1949	Hunter H. Lott, Jr., Marion C. C.
1950–51	Edward Hahn, Detroit

Lapham International Trophy Record

Year	Result	Where played
1922	U. S. 11, Canada 2	Boston
1923	U. S. 9, Canada 3	Toronto
1924	U. S. 7⅔, England 6, Canada 1⅓	Philadelphia
1925	U. S. 10, Canada 5	Montreal
1926	U. S. 13, Canada 2	New York
1927	England 17½, U. S. 16½, Canada 11	Toronto
1928	U. S. 14, Canada 1	Buffalo
1929	Canada 8, U. S. 4	Hamilton
1930	U. S. 8, Canada 1	Baltimore
1931	Canada 6, U. S. 5	Quebec
1932	U. S. 8, Canada 0	Hartford
1933	Canada 11, U. S. 4	Toronto
1934	U. S. 10, Canada 1	Cedarhurst, N. Y.
1935	U. S. 11, Canada 4	Montreal
1936	U. S. 10, Canada 2	Detroit
1937	Canada 8, U. S. 7	Montreal
1938	U. S. 13, Canada 2	Boston
1939	Canada 11, U. S. 4	Toronto
1940	Canada 10, U. S. 5	Hartford
1941	U. S. 8, Canada 7	Toronto
1942	U. S. 13, Canada 2	Rochester, N. Y.
1943	Canada 7, U. S. 5	Montreal
1944	U. S. 12, Canada 3	New York
1945	Canada 12, U. S. 3	Toronto
1946	U. S. 13, Canada 2	Boston
1947	Canada 9, U. S. 6	Hamilton
1948	U. S. 15, Canada 5	Hartford
1949	Canada 7, U. S. 3	Quebec
1950	U. S. 7, Canada 6	Providence
1951	U. S. 8, Canada 7	Toronto

OTHER SQUASH RACQUETS CHAMPIONS, 1951

Cowles Invitation—G. Diehl Mateer, Jr., Devon, Pa.
Lockett Trophy doubles—Hunter H. Lott, Jr.–G. Diehl Mateer, Jr., Merion (Pa.) Cricket Club

National

Doubles—Calvin D. MacCracken, New York–G. Diehl Mateer, Jr.
Intercollegiate—Henry Foster, Harvard
Professional—Jim Tully, Pittsburgh
Veterans'—George Waring, Boston
Men's team—Harvard University
Women's singles—Jane Austin, Philadelphia
Women's doubles—Mrs. John Carrott, Greenwich, Conn.–Frances McGurn, Philadelphia
Women veterans'—Mrs. Ellwood I. Beatty, Jr., Philadelphia

Canadian

Singles—Henri Salaun, Boston

SQUASH TENNIS

National Champions

Year	Winner and Club
1911–12	Alfred Stillman, Harvard
1913	George Whitney, Harvard
1914	Alfred Stillman, Harvard
1915–17	Eric S. Winston, Harvard
1918	Fillmore Van S. Hyde, Harvard
1919	John W. Appel, Jr., Harvard
1920	Auguste J. Cordier, Yale
1921	Fillmore Van S. Hyde, Harvard
1922	Thomas R. Coward, Yale
1923	R. Earl Fink, Crescent
1924	Fillmore Van S. Hyde, Harvard
1925	William Rand, Jr., Harvard
1926	Fillmore Van S. Hyde, Harvard
1927–29	Rowland B. Haines, Columbia
1930–37	Harry F. Wolf, New York A. C.
1938	Harry F. Wolf, Montclair
1939–40	Harry F. Wolf, New York A. C.
1941	Joseph J. Lordi, New York A. C.
1942–45	No tournaments
1946	Frank R. Hanson, Columbia
1947	Frederick B. Ryan, Jr., Yale
1948–49	H. Robert Reeve, Bayside T. C.
1950	H. Robert Reeve, Nassau C. C.
1951	J. T. P. Sullivan, Yale

TABLE TENNIS

World Champions

Year	Men's singles	Men's doubles
1927–28	R. Jacobi, Hungary	Jacobi-Pecsi, Hungary
1928–29	M. Mechlovits, Hungary	Liebster-Thum, Austria
1929–30	Fred Perry, England	Barna-Szabados, Hungary
1930–31	Viktor Barna, Hungary	Barna-Szabados, Hungary
1931–32	Miklos Szabados Hungary	Barna-Szabados, Hungary
1932–33	Viktor Barna, Hungary	Barna-Szabados, Hungary
1933–34	Viktor Barna, Hungary	Barna-Glancz, Hungary
1934–35	Viktor Barna, Hungary	Barna-Szabados, Hungary
1935–36	Viktor Barna, Hungary	Barna-Szabados, Hungary
1936–37	Standa Kolar, Czechoslovakia	Blattner-McClure, United States
1937–38	Richard Bergmann, Austria	Blattner-McClure, United States
1938–39	Bohumil Vana, Czechoslovakia	McClure-Schiff, United States
1939–40	Richard Bergmann, Austria	Bergmann, Austria-Barna, Hungary
1947–48	Verhuslav Vana, Czechoslovakia	Vana-Slar, Czechoslovakia
1948–49	Richard Bergmann, England	Vana-Steipek, Czechoslovakia
1949–50	John Leach, England	Tokar-Andreadis, Czechoslovakia
1950–51	Richard Bergmann, England	Sido-Soos, Hungary
1951–52	John Leach, England	Vana-Andreadis, Czechoslovakia

Year	Women's singles
1927–31	M. Mednyansky, Hungary
1932	A. Sipos, Hungary
1933	A. Sipos, Hungary
1934	Marie Kettnerova, Czechoslovakia
1935	Marie Kettnerova, Czechoslovakia
1936	Ruth Hughes Aarons, United States
1937	No tournament
1938	Trudi Pritzi, Austria
1939	Vlasha Depetrisova, Czechoslovakia
1947	Giselle Farkas, Hungary
1948	Giselle Farkas, Hungary
1949	Giselle Farkas, Hungary
1950	Angelica Roseanu, Rumania
1951	Angelica Roseanu, Rumania

Other World Champions, 1951

Women's doubles—Diana and Rosalind Rowe, England

Mixed doubles—Bohumil Vana, Czechoslovakia-Angelica Roseanu, Rumania

Men's team (Swaythling Cup)—Czechoslovakia

Women's team (Corbillon Cup)—Rumania

United States Champions

MEN'S SINGLES

1931	Marcus Schussheim, New York
1932	Coleman Clark, Chicago*
	Marcus Schussheim, New York*
1933	James M. Jacobson, New Rochelle, N. Y.*
	Sidney Heitner, New York*
1934	James McClure, Indianapolis*
	Sol Schiff, New York*
1935	A. Berenbaum, New York
1936	Viktor Barna, Hungary†
	Sol Schiff, New York‡
1937	Laszlo Bellak, Hungary†
1938	Laszlo Bellak, Hungary
1939	James McClure, Indianapolis
1940	Louis Pagliaro, New York
1941	Louis Pagliaro, New York
1942	Louis Pagliaro, New York
1943	William Holzrichter, Chicago
1944	John Somael, New York
1945	Richard Miles, New York
1946	Richard Miles, New York
1947	Richard Miles, New York
1948	Richard Miles, New York
1949	Richard Miles, New York
1950	John Leach, England
1951	Richard Miles, New York

MEN'S DOUBLES

1932	James M. Jacobson-George T. Bacon, Jr., New Rochelle, N. Y.
1933	Paul Pearson-Edwin Lewis, Chicago*
	Ralph Langsam-Lloyd Waterson, New York*
1934	Samuel Silberman-Alan Lobell, New York*
	Sol Schiff, N. Y.-Manny Moskowitz, Rutherford, N. J.*
1935	A. Berenbaum, N. Y.-Edward Silverglade, Trenton, N. J.
1936	James McClure, Indianapolis-Robert Blattner, St. Louis†
	James M. Jacobson, New Rochelle, N. Y.-Sol Schiff, New York‡
1937	Laszlo Bellak, Hungary-Standa Kolar, Czechoslovakia†
1938	Sol Schiff, New York-James McClure, Indianapolis
1939	Laszlo Bellak-Tibor Hazi, Hungary
1940	Sol Schiff, New York-James McClure, Indianapolis
1941	Edward Pinner-Cy Sussman, New York
1942	Edward Pinner-Cy Sussman, New York
1943	Laszlo Bellak, New York-Tibor Hazi, Philadelphia
1944	William Holzrichter, Chicago-Laszlo Bellak, N. Y.
1945	John Somael, New York-Max Hersh, Detroit
1946	Edward Pinner-Cy Sussman, New York
1947	Douglas Cartland-Arnold Fetbrod, New York
1948	Tibor Hazi, Washington-John Somael, New York
1949	Martin Reisman-Sol Schiff, New York
1950	John Leach-Jack Carrington, England
1951	M. Reisman, N. Y.-W. Holzrichter, Chicago

* Co-champions. At the time there were two national associations, each with its own champion. † Open championships. ‡ Closed championships.

WOMEN'S SINGLES

1933	Jessie Purves and Mrs. Fan Pockrose*
1934	Ruth Hughes Aarons and Iris Little*
1935	Ruth Hughes Aarons
1936	Ruth Hughes Aarons†
1937	Ruth Hughes Aarons‡
1938	Emily Fuller
1939	Emily Fuller
1940	Sally Green
1941	Sally Green
1942	Sally Green
1943	Sally Green
1944	Sally Green
1945	Davida Hawthorn
1946	Bernice Charney
1947	Leah Thall
1948	Peggy McLean
1949	Mrs. Leah Thall Neuberger
1950	Mrs. Reba K. Monness
1951	Mrs. Leah Thall Neuberger

GOLF

IT MAY BE that golf originated in Holland—historians believe it did—but certainly Scotland fostered the game and is famous for it. In fact, in 1457 the Scottish Parliament, disturbed because football and golf had lured young Scots from the more soldierly exercise of archery, passed an ordinance that "futeball and golf be utterly cryit doun and nocht usit". James I and Charles I of the royal line of Stuarts were golf enthusiasts, whereby the game came to be known as "the royal and ancient game of golf".

The golf balls used in the early games were leather covered and stuffed with feathers. Clubs of all kinds were fashioned by hand to suit individual players. The great step in spreading the game came with the change from the feather ball to the gutta-percha ball about 1850, and in 1860 formal competition began with the establishment of an annual tournament for the British open championship. There are records of "golf clubs" in the United States as far back as colonial days but no proof of actual play before John Reid and some friends laid out six holes on the Reid lawn in Yonkers, N. Y., in 1888 and played there with the golf balls and clubs brought over from Scotland by Robert Lockhart. This group then formed the St. Andrews Golf Club of Yonkers, and golf was established in this country.

However, it remained a rather sedate and almost aristocratic pastime until a 20-year-old ex-caddy, Francis Ouimet of Boston, defeated two great British professionals, Harry Vardon and Ted Ray, in the United States Open championship at Brookline, Mass., in 1913. This feat put the game and Francis Ouimet on the front pages of the newspapers and stirred a wave of enthusiasm for the sport. The greatest feat so far in golf history was that of Robert Tyre Jones, Jr. of Atlanta, Ga., in winning the British Open, the British Amateur, the U. S. Open and the U. S. Amateur titles in one year, 1930.

Golf Statistics

Source: United States Golf Association.

UNITED STATES OPEN CHAMPIONS

Year	Winner	Score	Where played
1895	Horace Rawlins	173	Newport
1896	James Foulis	152	Shinnecock Hills
1897	Joe Lloyd	162	Chicago
1898*	Fred Herd	328	Myopia
1899	Willie Smith	315	Baltimore
1900	Harry Vardon	313	Chicago
1901	Willie Anderson (a)	331	Myopia
1902	L. Auchterlonie	307	Garden City
1903	Willie Anderson (a)	307	Baltusrol
1904	Willie Anderson	303	Glen View
1905	Willie Anderson	314	Myopia
1906	Alex Smith	295	Onwentsia
1907	Alex Ross	302	Philadelphia
1908	Fred McLeod (a)	322	Myopia
1909	George Sargent	290	Englewood
1910	Alex Smith (a)	298	Philadelphia
1911	J. J. McDermott (a)	307	Chicago
1912	J. J. McDermott	294	Buffalo
1913	Francis Ouimet (a,b)	304	Brookline
1914	Walter Hagen	290	Midlothian
1915	Jerome D. Travers (b)	297	Baltusrol
1916	Charles Evans, Jr.(b)	286	Minikahda
1917-18	No tournaments†		
1919	Walter Hagen (a)	301	Brae Burn
1920	Edward Ray	295	Inverness
1921	James M. Barnes	289	Columbia
1922	Gene Sarazen	288	Skokie
1923	R. T. Jones, Jr.(a,b)	296	Inwood
1924	Cyril Walker	297	Oakland Hills
1925	W. Macfarlane (a)	291	Worcester
1926	R. T. Jones, Jr.(a,b)	293	Scioto
1927	Tommy Armour (a)	301	Oakmont
1928	Johnny Farrell (a)	294	Olympia Fields
1929	R. T. Jones, Jr.(a,b)	294	Winged Foot
1930	R. T. Jones, Jr.(b)	287	Interlachen
1931	Billy Burke (a)	292	Inverness
1932	Gene Sarazen	286	Fresh Meadow
1933	John Goodman (b)	287	North Shore
1934	Olin Dutra	293	Merion
1935	Sam Parks, Jr.	299	Oakmont
1936	Tony Manero	282	Baltusrol
1937	Ralph Guldahl	281	Oakland Hills
1938	Ralph Guldahl	284	Cherry Hills
1939	Byron Nelson (a)	284	Philadelphia
1940	W. Lawson Little, Jr.(a)	287	Canterbury
1941	Craig Wood	284	Colonial
1942-45	No tournaments‡		
1946	Lloyd Mangrum (a)	284	Canterbury
1947	Lew Worsham (a)	282	St. Louis
1948	Ben Hogan	276	Riviera
1949	Cary Middlecoff	286	Medinah
1950	Ben Hogan (a)	287	Merion
1951	Ben Hogan	287	Oakland Hills

(a) Won play-off. (b) Amateur. * In 1898 competition was extended to 72 holes. † In 1917, Jock Hutchison, with a 292, won an Open Patriotic Tournament for the benefit of the American Red Cross at Whitemarsh Valley Country Club. ‡ In 1942, Ben Hogan, with a 271, won a Hale American National Open Tournament for the benefit of the Navy Relief Society and USO at Ridgemoor Country Club.

UNITED STATES AMATEUR CHAMPIONS

Year	Winner	Where played
1895	Charles B. Macdonald	Newport
1896	H. J. Whigham	Shinnecock Hills
1897	H. J. Whigham	Chicago
1898	Findlay S. Douglas	Morris County
1899	H. M. Harriman	Onwentsia
1900	Walter J. Travis	Garden City
1901	Walter J. Travis	Atlantic City
1902	Louis N. James	Glen View
1903	Walter J. Travis	Nassau
1904	H. Chandler Egan	Baltusrol
1905	H. Chandler Egan	Chicago
1906	Eben M. Byers	Englewood
1907	Jerome D. Travers	Euclid
1908	Jerome D. Travers	Garden City
1909	Robert A. Gardner	Chicago
1910	W. C. Fownes, Jr.	Brookline
1911	Harold H. Hilton	Apawamis
1912	Jerome D. Travers	Chicago
1913	Jerome D. Travers	Garden City
1914	Francis Ouimet	Ekwanok
1915	Robert A. Gardner	Detroit
1916	Charles Evans, Jr.	Merion
1919	S. D. Herron	Oakmont
1920	Charles Evans, Jr.	Engineers'
1921	Jesse P. Guilford	St. Louis
1922	Jess W. Sweetser	Brookline
1923	Max R. Marston	Flossmoor
1924	R. T. Jones, Jr.	Merion
1925	R. T. Jones, Jr.	Oakmont
1926	George Von Elm	Baltusrol
1927	R. T. Jones, Jr.	Minikahda
1928	R. T. Jones, Jr.	Brae Burn
1929	H. R. Johnston	Del Monte
1930	R. T. Jones, Jr.	Merion
1931	Francis Ouimet	Beverly
1932	C. R. Somerville	Baltimore
1933	G. T. Dunlap, Jr.	Kenwood
1934	W. Lawson Little, Jr.	Brookline
1935	W. Lawson Little, Jr.	Cleveland
1936	John W. Fischer	Garden City
1937	John Goodman	Alderwood
1938	Willie Turnesa	Oakmont
1939	Marvin H. Ward	North Shore
1940	R. D. Chapman	Winged Foot
1941	Marvin H. Ward	Omaha
1946	Ted Bishop	Baltusrol
1947	Robert Riegel	Del Monte
1948	Willie Turnesa	Memphis
1949	Charles Coe	Oak Hill
1950	Sam Urzetta	Minneapolis
1951	Billy Maxwell	Saucon Valley

UNITED STATES WOMEN AMATEUR CHAMPIONS

1895	Mrs. C. S. Brown	Meadow Brook
1896	Beatrix Hoyt	Morris County
1897	Beatrix Hoyt	Essex (Mass.)
1898	Beatrix Hoyt	Ardsley
1899	Ruth Underhill	Philadelphia
1900	Frances C. Griscom	Shinnecock Hills
1901	Genevieve Hecker	Baltusrol
1902	Genevieve Hecker	Brookline
1903	Bessie Anthony	Chicago
1904	G. M. Bishop	Merion
1905	Pauline Mackay	Morris County
1906	Harriet S. Curtis	Brae Burn
1907	Margaret Curtis	Midlothian
1908	K. C. Harley	Chevy Chase
1909	D. I. Campbell	Merion
1910	D. I. Campbell	Homewood
1911	Margaret Curtis	Baltusrol
1912	Margaret Curtis	Essex (Mass.)
1913	Gladys Ravenscroft	Wilmington
1914	Mrs. H. A. Jackson	Nassau
1915	Mrs. C. H. Vanderbeck	Onwentsia
1916	Alexa Stirling	Belmont Springs
1919	Alexa Stirling	Shawnee
1920	Alexa Stirling	Mayfield
1921	Marion Hollins	Hollywood (N. J.)
1922	Glenna Collett	Greenbrier
1923	Edith Cummings	Westchester-Biltmore
1924	Mrs. D. C. Hurd	Rhode Island
1925	Glenna Collett	St. Louis
1926	Mrs. G. H. Stetson	Merion
1927	Mrs. M. B. Horn	Cherry Valley
1928	Glenna Collett	Hot Springs (Va.)
1929	Glenna Collett	Oakland Hills
1930	Glenna Collett	Los Angeles
1931	Helen Hicks	Buffalo
1932	Virginia Van Wie	Salem
1933	Virginia Van Wie	Exmoor
1934	Virginia Van Wie	Whitemarsh Valley
1935	Mrs. E. H. Vare, Jr.	Interlachen
1936	Pamela Barton	Canoe Brook
1937	Mrs. J. A. Page, Jr.	Memphis
1938	Patty Berg	Westmoreland
1939	Betty Jameson	Wee Burn
1940	Betty Jameson	Del Monte
1941	Mrs. Frank Newell	Brookline
1946	Mrs. M. D. Zaharias	Tulsa
1947	Louise Suggs	Franklin Hills
1948	Grace Lenczyk	Pebble Beach
1949	Mrs. D. G. Porter	Merion
1950	Beverly Hanson	East Lake
1951	Dorothy Kirby	Town and Country

United States Public Links Champions

1922	Edmund R. Held	Toledo, Ohio
1923	Richard J. Walsh	Washington, D. C.
1924	Joseph Coble	Dayton, Ohio
1925	R. J. McAuliffe	Garden City, N. Y.
1926	Lester Bolstad	Buffalo, N. Y.
1927	C. F. Kauffmann	Cleveland, Ohio
1928	C. F. Kauffmann	Philadelphia, Pa.
1929	C. F. Kauffmann	St. Louis, Mo.
1930	Robert E. Wingate	Jacksonville, Fla.
1931	Charles Ferrera	St. Paul, Minn.
1932	R. L. Miller	Louisville, Ky.
1933	Charles Ferrera	Portland, Oreg.
1934	David A. Mitchell	Pittsburgh, Pa.
1935	Frank Strafaci	Indianapolis, Ind.
1936	B. Patrick Abbott	Farmingdale, N. Y.
1937	Bruce N. McCormick	San Francisco, Cal.
1938	Al Leach	Cleveland, Ohio
1939	Andrew Szwedko	Baltimore, Md.
1940	Robert C. Clark	Detroit, Mich.
1941	William M. Welch	Spokane, Wash.
1946	Smiley Quick	Denver, Colo.
1947	Wilfred Crossley	Minneapolis, Minn.
1948	Michael R. Ferentz	Atlanta, Ga.
1949	Ken Towns	Los Angeles, Calif.
1950	Stan Bielat	Louisville, Ky.
1951	Dave Stanley	Milwaukee, Wis.

UNITED STATES P. G. A. CHAMPIONS

Source: The Professional Golfers' Association of America.

Year	Winner	Where played
1916	Jim Barnes	Siwanoy, N. Y.
1917–18	No tournaments	
1919	Jim Barnes	Engineers, L. I.
1920	Jock Hutchison	Flossmoor, Ill.
1921	Walter Hagen	Inwood, L. I.
1922	Gene Sarazen	Oakmont, Pa.
1923	Gene Sarazen	Pelham, N. Y.
1924	Walter Hagen	French Lick, Ind.
1925	Walter Hagen	Olympia Fields, Ill.
1926	Walter Hagen	Salisbury, L. I.
1927	Walter Hagen	Dallas, Texas
1928	Leo Diegel	Baltimore, Md.
1929	Leo Diegel	Hillcrest, Calif.
1930	Tommy Armour	Fresh Meadow, L. I.
1931	Tom Creavy	Wannamoisett, R. I.
1932	Olin Dutra	Keller Course, Minn.
1933	Gene Sarazen	Blue Mound, Wis.
1934	Paul Runyan	Park Club, Buffalo
1935	Johnny Revolta	Twin Hills, Okla.
1936	Denny Shute	Pinehurst, N. C.
1937	Denny Shute	Pittsburgh, Pa.
1938	Paul Runyan	Shawnee-on-Delaware, Pa.
1939	Henry Picard	Pomonok, L. I.
1940	Byron Nelson	Hershey, Pa.
1941	Victor Ghezzi	Denver, Colo.
1942	Sam Snead	Atlantic City, N. J.
1943	No tournament	
1944	Bob Hamilton	Spokane, Wash.
1945	Byron Nelson	Dayton, Ohio
1946	Ben Hogan	Portland, Oreg.
1947	Jim Ferrier	Plum Hollow, Mich.
1948	Ben Hogan	St. Louis, Mo.
1949	Sam Snead	Richmond, Va.
1950	Chandler Harper	Columbus, Ohio
1951	Sam Snead	Oakmont, Pa.

BRITISH OPEN CHAMPIONS

Year	Winner	Score	Where played
1860	W. Park	174	Prestwick
1861	Tom Morris, Sr.	163	Prestwick
1862	Tom Morris, Sr.	163	Prestwick
1863	W. Park	168	Prestwick
1864	Tom Morris, Sr.	167	Prestwick
1865	A. L. Strath	162	Prestwick
1866	W. Park	169	Prestwick
1867	Tom Morris, Sr.	170	Prestwick
1868	Tom Morris, Jr.	170	Prestwick
1869	Tom Morris, Jr.	154	Prestwick
1870	Tom Morris, Jr.	149	Prestwick
1872	Tom Morris, Jr.	166	Prestwick
1873	Tom Kidd	179	St. Andrews
1874	Mungo Park	159	Musselburgh
1875	Willie Park	166	Prestwick
1875	Bob Martin	176	St. Andrews
1876	Jamie Anderson	160	Musselburgh
1878	Jamie Anderson	157	Prestwick
1879	Jamie Anderson	170	St. Andrews
1880	Bob Ferguson	162	Musselburgh
1881	Bob Ferguson	170	Prestwick
1882	Bob Ferguson	171	St. Andrews
1883	W. L. Fernie (a)	159	Musselburgh
1884	Jack Simpson	160	Prestwick
1885	Bob Martin	171	St. Andrews
1886	D. L. Brown	157	Musselburgh
1887	W. Park, Jr.	161	Prestwick
1888	Jack Burns	171	St. Andrews
1889	W. Park, Jr. (a)	155	Musselburgh
1890	John Ball	164	Prestwick
1891	Hugh Kirkaldy	166	St. Andrews
1892*	H. H. Hilton	305	Muirfield
1893	W. Auchterlonie	322	Prestwick
1894	J. H. Taylor	326	Sandwich
1895	J. H. Taylor	322	St. Andrews
1896	H. Vardon (a)	316	Muirfield
1897	H. H. Hilton	314	Hoylake
1898	H. Vardon	307	Prestwick
1899	H. Vardon	310	Sandwich
1900	J. H. Taylor	309	St. Andrews
1901	James Braid	309	Muirfield
1902	Alex Herd	307	Hoylake
1903	H. Vardon	300	Prestwick
1904	Jack White	296	Sandwich
1905	James Braid	318	St. Andrews
1906	James Braid	300	Muirfield
1907	Arnaud Massy	312	Hoylake
1908	James Braid	291	Prestwick
1909	J. H. Taylor	295	Deal
1910	James Braid	299	St. Andrews
1911	Harry Vardon (a)	303	Sandwich
1912	E. Ray	295	Muirfield
1913	J. H. Taylor	304	Hoylake
1914	Harry Vardon	306	Prestwick
1915–19	No tournaments		
1920	George Duncan	303	Deal
1921	Jock Hutchison (a)	296	St. Andrews
1922	Walter Hagen	300	Sandwich
1923	A. G. Havers	295	Troon
1924	Walter Hagen	301	Hoylake
1925	Jim Barnes	300	Prestwick
1926	R. T. Jones, Jr.	291	Royal Lytham, St. Annes
1927	R. T. Jones, Jr.	285	St. Andrews
1928	Walter Hagen	292	Sandwich
1929	Walter Hagen	292	Muirfield
1930	R. T. Jones, Jr.	291	Hoylake
1931	T. D. Armour	296	Carnoustie
1932	G. Sarazen	283	Princes, Sandwich
1933	D. Shute (a)	292	St. Andrews
1934	T. H. Cotton	283	Sandwich
1935	A. Perry	283	Muirfield
1936	A. H. Padgham	287	Royal Liverpool
1937	T. H. Cotton	290	Carnoustie
1938	R. A. Whitcombe	295	Sandwich
1939	R. Burton	290	St. Andrews
1940–45	No tournaments		
1946	Sam Snead	290	St. Andrews
1947	Fred Daly	293	Hoylake
1948	Henry Cotton	284	Gullane, Muirfield
1949	Bobby Locke (a)	283	Sandwich, Deal
1950	Bobby Locke	279	Troon, Lochgreen
1951	Max Faulkner	285	Portrush

(a) Won play-off. * In 1892 competition was extended to 72 holes.

Plays On 3,000th Golf Course

On Sept. 17, 1951, Ralph Anderson Kennedy, a 69-year-old salesman from New York, played a round of golf on the historic Old Course at St. Andrews, Scotland It was No. 3,000 on the list of courses he had visited.

BRITISH AMATEUR CHAMPIONS

Year	Winner	Where played
1885	A. F. MacFie	Hoylake
1886	H. G. Hutchinson	St. Andrews
1887	H. G. Hutchinson	Hoylake
1888	John Ball	Prestwick
1889	J. E. Laidlay	St. Andrews
1890	John Ball	Hoylake
1891	J. E. Laidlay	St. Andrews
1892	John Ball	Sandwich
1893	Peter L. Anderson	Prestwick
1894	John Ball	Hoylake
1895	L. M. B. Melville	St. Andrews
1896	F. G. Tait	Sandwich
1897	A. J. T. Allan	Muirfield
1898	F. G. Tait	Hoylake
1899	John Ball	Prestwick
1900	H. H. Hilton	Sandwich
1901	H. H. Hilton	St. Andrews
1902	C. Hutchings	Hoylake
1903	R. Maxwell	Muirfield
1904	W. J. Travis	Sandwich
1905	A. G. Barry	Prestwick
1906	James Robb	Hoylake
1907	John Ball	St. Andrews
1908	E. A. Lassen	Sandwich
1909	R. Maxwell	Muirfield
1910	John Ball	Hoylake
1911	H. H. Hilton	Prestwick
1912	John Ball	Westward Ho
1913	H. H. Hilton	St. Andrews
1914	J. L. C. Jenkins	Sandwich
1915-19	No tournaments	
1920	Cyril J. H. Tolley	Muirfield
1921	W. I. Hunter	Hoylake
1922	E. W. E. Holderness	Prestwick
1923	R. H. Wethered	Deal
1924	E. W. E. Holderness	St. Andrews
1925	Robert Harris	Westward Ho
1926	Jess W. Sweetser	Muirfield
1927	Dr. W. Tweddell	Hoylake
1928	T. P. Perkins	Prestwick
1929	C. J. H. Tolley	Sandwich
1930	R. T. Jones, Jr.	St. Andrews
1931	E. Martin Smith	Westward Ho
1932	J. De Forest	Muirfield
1933	Hon. M. Scott	Hoylake
1934	W. Lawson Little, Jr.	Prestwick
1935	W. Lawson Little, Jr.	Royal Lytham, St. Annes
1936	H. Thomson	St. Andrews
1937	R. Sweeny, Jr.	Sandwich
1938	C. R. Yates	Troon
1939	A. Kyle	Hoylake
1940-45	No tournaments	
1946	J. Bruen	Birkdale
1947	Willie Turnesa	Carnoustie
1948	Frank Stranahan	Sandwich
1949	Max McCready	Portmarnock
1950	Frank Stranahan	St. Andrews
1951	Richard D. Chapman	Porthcawl

Intercollegiate Golf Association of America Champions

Year	Individual	Team
1897	Louis P. Bayard, Jr., Princeton	Yale
1898*	John Reid, Jr., Yale	Harvard
	James F. Curtis, Harvard	Yale
1899	Percy Pyne, 2d, Princeton	Harvard
1900	No tournament	
1901	H. Lindsley, Harvard	Harvard
1902*	Charles Hitchcock, Jr., Yale	Yale
	H. Chandler Egan, Harvard	Harvard
1903	F. O. Reinhart, Princeton	Harvard
1904	A. L. White, Harvard	Harvard
1905	Robert Abbott, Yale	Yale
1906	W. E. Clow, Jr., Yale	Yale
1907	Ellis Knowles, Yale	Yale
1908	H. H. Wilder, Harvard	Yale
1909	Albert Seckel, Princeton	Yale
1910	Robert E. Hunter, Yale	Yale
1911	George C. Stanley, Yale	Yale
1912	F. C. Davison, Harvard	Yale
1913	Nathaniel Wheeler, Yale	Yale
1914	Edward P. Allis, 3d, Harvard	Princeton
1915	Francis R. Blossom, Yale	Yale
1916	J. W. Hubbell, Harvard	Princeton
1917-18	No tournaments	
1919	A. L. Walker, Jr., Columbia	Princeton
1920	Jess W. Sweetser, Yale	Princeton
1921	J. Simpson Dean, Princeton	Dartmouth
1922	Pollack Boyd, Dartmouth	Princeton
1923	Dexter Cummings, Yale	Princeton
1924	Dexter Cummings, Yale	Yale
1925	G. Fred Lamprecht, Tulane	Yale
1926	G. Fred Lamprecht, Tulane	Yale
1927	Watts Gunn, Georgia Tech	Princeton
1928	M. J. McCarthy, Jr., Georgetown	Princeton
1929	Tom Aycock, Yale	Princeton
1930	George T. Dunlap, Jr., Princeton	Princeton
1931	George T. Dunlap, Jr., Princeton	Yale
1932	John W. Fischer, Jr., Michigan	Yale
1933	Walter Emery, Oklahoma	Yale
1934	Charles R. Yates, Georgia Tech	Michigan
1935	Ed White, U. of Texas	Michigan
1936	Charles Kocsis, Michigan	Yale
1937	Fred Haas, Jr., L. S. U.	Princeton
1938	John P. Burke, Georgetown	Stanford

* Two tournaments, in spring and fall.

National Collegiate Athletic Association Champions

Year	Individual	Team
1939	Vincent D'Antoni, Tulane	Stanford
1940	F. Dixon Brooke, Virginia	Princeton* / L. S. U.*
1941	Earl Stewart, L. S. U.	Stanford
1942	Frank Tatum, Jr., Stanford	Stanford* / L. S. U.*
1943	Wallace Ulrich, Carleton	Yale
1944	Louis Lick, Minnesota	Notre Dame
1945	John Lorms, Ohio State	Ohio State
1946	George Hamer, Georgia	Stanford
1947	Dave Barclay, Michigan	L. S. U.
1948	Bobby Harris, San Jose St.	San Jose St.
1949	Harvie Ward, North Carolina	No. Tex. St.
1950	Fred Wampler, Purdue	No. Tex. St.
1951	Tom Nieporte, Ohio State	No. Tex. St.

* Tie.

Walker Cup Record

MEN (AMATEUR)

Year		Where played
*1921	United States 9, Great Britain 3...	Hoylake
1922	United States 8, Great Britain 4...	Southampton
1923	United States 6, Great Britain 5... One match halved	St. Andrews, Scotland
1924	United States 9, Great Britain 3...	Garden City G. C.
1926	United States 6, Great Britain 5... One match halved	St. Andrews, Scotland
1928	United States 11, Great Britain 1..	Wheaton, Ill.
1930	United States 10, Great Britain 2..	Royal St. George's
1932	United States 8, Great Britain 1... Three matches halved	The Country Club, Brookline, Mass.
1934	United States 9, Great Britain 2... One match halved	St. Andrews, Scotland
1936	United States 9, Great Britain 0... Three matches halved	Pine Valley G. C., Clementon, N. J.
1938	Great Britain 7, United States 4... One match halved	St. Andrews, Scotland
1947	United States 8, Great Britain 4...	St. Andrews
1949	United States 10, Great Britain 2..	Winged Foot
1951	United States 6, Great Britain 3...	Southport

* Informal match.

Curtis Cup Record

WOMEN

Year		Where played
*1930	Great Britain 8, United States 6.....	Sunningdale
1932	United States 5½, Great Britain 3½..	Wentworth, Eng.
1934	United States 6½, Great Britain 2½..	Chevy Chase
1936	United States 4½, Great Britain 4½..	Gleneagles
1938	United States 5½, Great Britain 3½..	Essex C. C.
1948	United States 6½, Great Britain 2½..	Birkdale
1950	United States 7½, Great Britain 1½..	Buffalo

* Informal match.

P. G. A. TOURNEY WINNERS, 1951

	Score
Los Angeles Open—Lloyd Mangrum	280
Bing Crosby Invitational—Byron Nelson	209
P. G. A. Seniors'—Al Watrous*	142
Lakewood Park Invitational—Cary Middlecoff	271
Phoenix Open—Lew Worsham	272
Tucson Open—Lloyd Mangrum	269
Texas Open—E. J. Harrison*	265
Rio Grande Valley Open—Chuck Klein	269
Houston Open—Marty Furgol	277
St. Petersburg Open—Jim Ferrier	268
LaGorce Pro-Amateur—Sam Snead	63
Miami Beach Open—Jim Ferrier	273
Seminole Pro-Amateur—Lloyd Mangrum	203
Jacksonville Open—Jim Ferrier	272
Aiken Pro-Amateur—Lew Worsham and Jack Burke, Jr. (tie)	67
Greater Greensboro Open—Art Doering	279
Wilmington Azalea Open—Lloyd Mangrum	281
Augusta Masters'—Ben Hogan	280
Colonial Invitational—Cary Middlecoff	282
Piping Rock Pro-Amateur—Jack Burke, Jr.	68
Palm Beach Round-Robin—Roberto De Vincenzo	40 pts.
U.S. Open—Ben Hogan	287
Inverness Round-Robin—Roberto De Vincenzo and Henry Ransom	..
P.G.A. championship—Sam Snead	...
Canadian Open—Jim Ferrier	273
Western Open—Marty Furgol	270
Pabst Blue Ribbon—Joe Kirkwood, Jr.	271
St. Paul Open—Lloyd Mangrum	266
All American—Cary Middlecoff	274
Tam O'Shanter world championship—Ben Hogan	273
Sioux City Open—Buck White	272
Ft. Wayne Open—Jim Ferrier	269
Empire State Open—Buck White	284
Eastern Open—Cary Middlecoff	279
Reading Open—Jim Turnesa	280
St. Louis Open—Cary Middlecoff	269
Kansas City Open—Cary Middlecoff*	278
Ozark Open—Pete Fleming	205

* Won playoff.

Ryder Cup Record

MEN (PROFESSIONAL)

Year		Where played
*1926	Great Britain 13½, United States 1½	Wentworth
1927	United States 9½, Great Britain 2½..	Worcester C. C.
1929	Great Britain 7, United States 5.....	Moortown, Eng.
1931	United States 9, Great Britain 3.....	Scioto C. C.
1933	Great Britain 6½, United States 5½..	Southport, Eng.
1935	United States 9, Great Britain 3.....	Ridgewood C. C.
1937	United States 8, Great Britain 4.....	Southport, Eng.
1947	United States 11, Great Britain 1.....	Portland, Oreg.
1949	United States 7, Great Britain 5.....	Ganton, Eng.
1951	United States 9½, Great Britain 2½..	Pinehurst, N. C.

* Informal match.

OTHER CHAMPIONS, 1951

Match Play

Canadian Amateur—Walter McElroy, Hull, Quebec
Eastern Intercollegiate—Lincoln Roden, Yale
Eastern Interscholastic—Edgar Garbisch, Jr., The Hill
French Amateur—Robert Knowles, Brookline, Mass.
Mexican Amateur—Frank Stranahan, Toledo
National Amateur Senior—M. E. Stephens, Sebring, Fla.
National Junior—Tommy Jacobs, Montebello, Calif.
National Lefthanders'—Ross Collins, Monticello, Ark.
North-South Amateur—Hobart Manley, Savannah, Ga.
P.G.A. National Caddie—Leonard Pietras, Toledo
Southern Amateur—Arnold Blum, Macon, Ga.
Trans-Mississippi—L. M. Crannell, Jr., North Texas State College
United Golf Assn. Amateur—Joe Louis, Detroit
Western Amateur—Frank Stranahan, Toledo

WOMEN

British Amateur—Mrs. Catherine MacCann, Ireland
Canadian Open—Marlene Stewart, Fonthill, Ont.
National Intercollegiate—Barbara Bruning, Wellesley
National Junior—Arline Brooks, Pasadena, Calif.
North-South Amateur—Pat O'Sullivan, Orange, Conn.
Southern Amateur—Polly Riley, Fort Worth
Texas Open—Mrs. Mildred D. Zaharias
Trans-Mississippi—Mary Ann Downey, Baltimore
Western Amateur—Marjorie Lindsay, Decatur, Ill.
Western Open—Patty Berg, Minneapolis

Medal Play

	Score
All-American Amateur—Frank Stranahan	286
Australian Open—Peter Thomson, Australia	283
French Open—Hassen Hassenein, Egypt	273
National Blind—Charles A. Boswell, Birmingham, Ala.	209
National Senior—Tom Robbins, Larchmont, N. Y.	140
Tam O'Shanter World Championship Amateur—Frank Stranahan	283
United Golf Assn. Professional—Ted Rhodes, Los Angeles	280

WOMEN

All-American Open—Mrs. Mildred D. Zaharias	295
Canadian Closed—Marlene Stewart, Fonthill, Ont.	241
Eastern Amateur—Pat O'Sullivan, Orange, Conn.	235
Eastern Open—Beverly Hanson, Indio, Calif.	215
National Open—Betsy Rawls, Austin, Texas	293
National Senior—Mrs. Walter A. Reynolds, Miami Beach, Fla.	167
Tam O'Shanter World Championship Open—Mrs. Mildred D. Zaharias, Prairie View, Ill.	293
Titleholders'—Pat O'Sullivan	301
Weathervane Open—Patty Berg, Minneapolis	*601

* Won playoff.

TEAM

Duke of Devonshire Trophy—United States
Eastern Intercollegiate—Yale
Griscom Cup (women)—New York

NATIONAL COLLEGIATE A. A. CHAMPIONS, 1951

Source: Walter Byers, Executive Director, N. C. A. A.

Track and Field

(At Seattle, Wash.)

100 yd.—Art Bragg, Morgan State	0:09.6
220 yd.—George Rhoden, Morgan State	0:20.7
440 yd.—George Rhoden	0:46.5
880 yd.—John Barnes, Occidental	1:50.7
Mile—Warren Druetzler, Michigan State	4:08.8
2 miles—Don McEwen, Michigan	9:03.2
120-yd. hurdles—Jack Davis, So. California	0:13.7
220-yd. hurdles—Charles Moore, Cornell	0:22.7
Broad jump—George Brown, U. C. L. A.	24 ft. 5¾ in.
High jump—J. Lewis Hall, Jr., Florida	6 ft. 9 in.
Discus—Jim Dillion, Auburn	167 ft. 5¾ in.
Javelin—Charles Missfeldt, Oregon	219 ft. 4¾ in.
Pole vault—Don Laz, Illinois	14 ft. 9¾ in.
Shot-put—Darrow Hooper, Texas A. & M.	53 ft. 11 in.
Team—Southern California	56 pts.

Swimming

(At Austin, Texas)

50-yd. free—Clark Scholes, Michigan State	0:22.9
100-yd. free—Clark Scholes	0:51
220-yd. free—John Marshall, Yale	2:05.6
440-yd. free—John Marshall	4:30.2
1,500-meter free—John Marshall	18:18.8
100-yd. back—Dick Thoman, Yale	0:57.5
200-yd. back—Jack Taylor, Ohio State	2:07.3
100-yd. breast—Robert Brawner, Princeton	1:01.1
200-yd. breast—Robert Brawner	2:18.6
150-yd. medley—Peter Salmon, Washington	1:32.4
300-yd. medley relay—Ohio State (Taylor, Jerry Holan, Herb Kobayashi)	2:52.2
400-yd. relay—Michigan State (David Hoffmann, James Quigley, Scholes, George Hoogerhude)	3:26.7
1-meter dive—David Browning, Texas	131.43 pts.
3-meter dive—David Browning	144.75 pts.
Team—Yale	81 pts.

Gymnastics

(At Ann Arbor, Mich.)

	Points
All-around—Bill Roetzheim, Florida State U.	1,605
Flying rings—Mel Stout, Michigan State	275
Horizontal bar—Bill Roetzheim	283
Parallel bars—Jack Beckner, So. California	280
Rope climb—Leo Minotti, Syracuse	3.4s
Side horse—Joe Kotys	283
Trampoline—Edsel Buchanan, Michigan	277
Tumbling—Robert Sullivan, Illinois	283
Team—Florida State University	26

Baseball

(At Omaha, Nebr.)

Oklahoma beat Tennessee, 3 to 2, in final.

Ice Hockey

(At Colorado Springs, Colo.)

Michigan beat Brown, 7 to 1, in final.

Boxing

(At East Lansing, Mich.)

125 lb.—Neil Ofsthun, Minnesota
130 lb.—Jack Melson, Washington State
135 lb.—Everett Conley, Washington State
145 lb.—Gerald Black, Michigan State
155 lb.—Dick Murphy, Wisconsin
165 lb.—Eli Thomas, Gonzaga
175 lb.—Charles Spieser, Michigan State
Heavyweight—Robert Ranck, Wisconsin
Team—Michigan State (21 points)
John S. LaRowe Trophy—Everett Conley

Wrestling

(At Bethlehem, Pa.)

123 lb.—Anthony Gizoni, Waynesburg
130 lb.—Walter Romanowski, Cornell (Iowa)
137 lb.—George Layman, Oklahoma A. & M.
147 lb.—Keith Young, Iowa State Teachers
157 lb.—Philip Smith, Oklahoma
167 lb.—Eugene Gibbons, Michigan State
177 lb.—Grover Rains, Oklahoma A. & M.
Heavyweight—Bradley Glass, Princeton
Team—Oklahoma (24 points)

Fencing

(At Champaign, Ill.)

Three-weapon team—Columbia (69 pts.)
Foil—Robert Nielsen, Columbia (24 pts.)
Epee—Daniel Chafetz, Columbia (22 pts.)
Saber—Chamberless Johnston, Princeton (25 pts.)

Tennis

(At Evanson, Ill.)

Singles—Tony Trabert, Cincinnati
Doubles—Earl Cochell–Hugh Stewart, Southern California
Team—Southern California

Golf

(At Columbus, Ohio)

Individual—Tom Nieporte, Ohio State
Team—North Texas State

1951 Basketball Final

(At Minneapolis, March 27)

KENTUCKY (68)	G.	F.	P.	P.
Whitaker, lf	4	1	2	9
Linville, rf	2	4	5	8
Spivey, c	9	4	2	22
Ramsey, lg	4	1	5	9
Watson, rg	3	2	3	8
Hagan	5	0	5	10
Tsioropoulos	1	0	1	2
Newton	0	0	0	0
Total	28	12	23	68

KANSAS STATE (58)	G.	F.	P.	P.
Head, lf	3	2	2	8
Stone, rf	3	6	2	12
Hitch, c	6	1	3	13
Barrett, lg	2	0	1	4
Iverson, rg	3	1	3	7
Rousey	2	0	3	4
Gibson	0	1	5	1
Upson	0	0	1	0
Knostman	1	1	1	3
Peck	2	0	0	4
Schuyler	1	0	2	2
Total	23	12	23	58

Half-time score—Kansas State 29, Kentucky 27.
Free throws missed—Stone 2, Barrett 2, Iverson, Knostman, Peck, Schuyler, Linville 4, Spivey 2, Ramsey 2, Watson 2, Hagan 2.

Fazio–Lindeman Bowling Champions

Buzz Fazio and Tony Lindeman of Detroit captured the national doubles bowling championship in 1951 by defeating Buddy Bomar and Ned Day of Chicago in a 48-game series split between the two cities, 19,765 pins to 18,564. Fazio had a 216 average for the entire match.

4 Wrestling Titles for U. S.

Richard Lemyre (bantamweight), Robert Perry (flyweight), Newton Copple (lightweight) and Melvin Northrup (welterweight) were the U. S. representatives who captured wrestling championships in the 1951 Pan-American Games at Buenos Aires.

EASTERN COLLEGE ATHLETIC CONFERENCE CHAMPIONS, 1951

Source: George L. Shiebler, Administrative Assistant, E. C. A. C.

TEAM

(Won-and-lost records in parentheses)

Baseball League—Princeton (7–2)
Basketball League—Columbia (12–0)
Golf Association—Yale
Gymnastic League—Army (4–0)
Pentagonal Hockey League—Brown (6–2)
Swimming League—Yale (7–0)
Tennis Association—Princeton (8–0)
Wrestling Association—Penn State

Fencing

(At West Point, N. Y.)

Three-weapon—Columbia (76 pts.)
Foil—Columbia (27)
Epee—Navy (29)
Saber—Columbia, Yale, Penn (27 each)

Assn. of Rowing Colleges

Varsity—Yale
Junior varsity—Harvard
Freshmen—Navy
Lightweight varsity—Penn
Lightweight junior varsity—Yale
Lightweight freshmen—Yale

Track and Field

INDOOR

Heptagonal Games Assn.—Army (52⅓ pts.)
I. C. A. A. A. A.—Manhattan (29)
Metropolitan (N. Y.) Assn.—Manhattan (89⅓)
Met. (N. Y.) Assn. freshmen—Fordham (48⅚)

OUTDOOR

Heptagonal Games Assn.—Cornell (50 pts.)
I. C. A. A. A. A.—Cornell (33¼)
Metropolitan (N. Y.) Assn.—Manhattan (100½)
Met. (N. Y.) Assn. freshmen—Fordham (71)
Middle Atlantic Assn.—Lafayette (50½)

INDIVIDUAL

Fencing

(At West Point, N. Y.)

Foil—Robert Nielsen, Columbia
Epee—Paul Utterback, Navy
Saber—Carl Knobloch, Yale

Gymnastics

(At Annapolis, Md.)

	Points
All-around—Joel Baba, Syracuse	1,093
Flying rings—Hal Lewis, Navy	284
Horizontal bar—Hal Lewis	291
Parallel bars—Joel Baba	265
Rope climb—Leo Minotti, Syracuse	3.5s.
Side horse—Eugene Rabbitt, Syracuse	288
Tumbling—Fritz Graf, Navy	264

Wrestling

(At State College, Pa.)

123 lb.—Mike Filipos, Lehigh
130 lb.—George Feuerbach, Lehigh
137 lb.—Don Maurey, Penn State
147 lb.—Frank Bettucci, Cornell
157 lb.—Emil Perona, Rutgers
167 lb.—George Graveson, Yale
177 lb.—Mike Rubino, Penn State
Heavyweight—Bradley Glass, Princeton

Swimming

(At Cambridge, Mass.)

50-yd. free—Donald Sheff, Yale	0:23.2
100-yd. free—Donald Sheff	0:51.5
220-yd. free—John Marshall, Yale	2:06.8
440-yd. free—John Marshall	4:31
1,500-meter free—John Marshall	18:22.8
100-yd. back—James Thomas, North Carolina	0:58.2
200-yd. back—James Thomas	2:08.8
100-yd. breast—Robert Brawner, Princeton	1:01.2
200-yd. breast—Robert Brawner	2:22.4
150-yd. medley—James Thomas	1:31.8
300-yd. medley relay—Yale (Bill Farnsworth, Stan Smith, Ray Reid)	2:55.6
400-yd. relay—Yale (Larom Munson, Farnsworth, John Blum, Sheff)	3:28.9
1-meter dive—Roger Hadlich, Yale	113.33 pts.
3-meter dive—Paul Dillingham, Jr., Harvard	115.30 pts.

EASTERN BOXING CHAMPIONS, 1951

Intercollegiate Association

125 lb.—Leonard Coiner, Virginia
130 lb.—Al Hollingsworth, Virginia
135 lb.—Grover Masterson, Virginia
145 lb.—John Albarano, Penn State
155 lb.—Bill Miller, Syracuse
165 lb.—Lou Koszarek, Penn State
175 lb.—Jim McInerney, Army
Heavyweight—Martin Crandell, Syracuse
Team (Edward J. Neil Trophy)—Syracuse (22 pts.)

TRACK AND FIELD

I. C. 4-A Championships, 1951

OUTDOOR

(At Franklin Field, Philadelphia)

100 yd.—Andy Stanfield, Seton Hall	0:09.7
220 (turn)—Andy Stanfield	0:20.6
440—Dick Maiocco, New York U.	0:47.5
880—Robert Mealey, Cornell	1:53.2
Mile—Fred Dwyer, Villanova	4:15.6
2 miles—John Joe Barry, Villanova	9:24.3
120 hurdles—Walter Ashbaugh, Cornell	0:14.4
220 hurdles—Meredith Gourdine, Cornell	0:23.7
Mile relay—Seton Hall (Dave Evans, Charles Slade, Robert Carter, Morris Currotta)	3:14.5
Broad jump—Meredith Gourdine	25 ft. 9¾ in.
High jump—Richard Lyster, Temple	6 ft. 5 in.
Discus—Cummin Clancy, Villanova	158 ft. ⅜ in.
Hammer—Thomas Bane, Tufts	179 ft. 8¾ in.
Javelin—Theodore Roderer, Penn State	211 ft.
Pole vault—George Appel, Yale	13 ft. 4 in.
Shot-put—John Vishnevsky, Marquette	51 ft. 8⅛ in.
Team—Cornell	33¼ pts.

INDOOR

(At Madison Square Garden and Squadron A Armory, New York)

60 yd.—Andy Stanfield, Seton Hall	0:06.3
600—Robert Carter, Seton Hall	1:12.9
1,000—Joseph Deady, Georgetown	2:11.7
Mile—Fred Dwyer, Villanova	4:16.2
2 miles—Richard Shea, Army	9:12
60 high hurdles—Meredith Gourdine, Cornell	0:07.4
Mile relay—Seton Hall (Frank Turner, Charles Slade, Morris Currotta, Robert Carter)	3:19.9
2-mile relay—Manhattan (Gerard Vier, Pat Duffy, Joseph Sechrode, Robert McNeill)	7:48.7
Broad jump—Andy Stanfield	24 ft. 5½ in.
High jump—James Herb, Penn State	6 ft. 5½ in.
Pole vault—George Appel, Yale	14 ft.
Shot-put—John Ogle, Manhattan	51 ft. 1 in.
35-lb. weight—Thomas Bane, Tufts	60 ft. ¼ in.
Team—Manhattan	29 pts.

CONFERENCE TRACK AND FIELD CHAMPIONSHIPS, 1951

Heptagonal Games Association

OUTDOOR

(At Providence, R. I.)

100 yd.—Mark Winfield, Columbia 0:09.9
440—Charles Moore, Cornell 0:47.9
880—Robert Mealey, Cornell 1:53.1
Mile—Walter Molineaux, Brown 4:19.6
2 miles—Richard Shea, Army 9:15
120 hurdles—Peter McCreary, Dartmouth ... 0:14.5
220 hurdles—Meredith Gourdine, Cornell ... 0:23.2
440 relay—Columbia (Shaw, Zegger, Berkman, Winfield) 0:43
Mile relay—Cornell (Gourdine, Lingel, Moore, Mealey) 3:17.8
Broad jump—Meredith Gourdine .... 24 ft. 3½ in.
High jump—Nelson Ehinger, Dartmouth 6 ft. 2 in.
Discus—Allen Wilson, Harvard .... 154 ft. 10⅞ in.
Hammer—Joseph Chadbourne, Yale 166 ft. 2¼ in.
Javelin—Robert Allison, Navy ..... 217 ft. 8⅛ in.
Pole vault—George Appel, Yale, and Gene Zeiner, Cornell (tie) ..... 13 ft. 4 in.
Shot-put—John McCallum, Penn .... 48 ft. 4½ in.
Team—Cornell ..... 50 pts.

INDOOR

(At 102d Regiment Armory, New York, and Coxe Cage, New Haven)

60 yd.—John Cook, Dartmouth 0:06.6
600—Charles Moore, Cornell 1:13
1,000—Warren Clifford, Yale 2:16.8
Mile—Walter Molineaux, Brown 4:23.1
2 miles—Richard Shea, Army 9:20.9
60 high hurdles—Peter McCreary, Dartmouth 0:07.6
Mile relay—Army (Johnson, Thompson, Wainer, Conway) 3:25.4
2-mile relay—Army (Vandenberg, Perkins, McMullen, Shea) 7:55.3
Broad jump—Eugene Gribbin, Army ... 23 ft. 8 in.
High jump—George Hipple, Yale, and Tom DiLuglio, Brown (tie) ..... 6 ft. 3⅞ in.
Pole vault—George Appel, Yale ..... 13 ft. 6¼ in.
Shot-put—Leonard Lyons, Princeton 48 ft. 10½ in.
35-lb. weight—Sam Lutterloh, Army ... 55 ft. 2 in.
Team—Army ..... 52½ pts.

Pacific Coast

OUTDOOR

(At Los Angeles, Calif.)

100 yd.—Bob Work, U. C. L. A. 0:09.8
220—Bob Work and George Brown, U. C. L. A. (tie) 0:21.6
440—John Bradley, Southern California 0:48.4
880—Hugh Mitchell, U. C. L. A. 1:51.6
Mile—Jim Newcomb, Southern California .. 4:10.7
2 miles—Jim Newcomb 9:18.1
120 hurdles—Jack Davis, So. California 0:14.4
220 hurdles—Jack Davis 0:23.4
Mile relay—Southern California (Bradley, Wehking, Sorgen, Nicholson) 3:16
Broad jump—George Brown ..... 24 ft. 3½ in.
High jump—George Widenfelt, Washington; Eric Roberts, Wash. State; Danny Miller, Oregon State (tie) ..... 6 ft. 5 in.
Discus—Bob Mathias, Stanford ..... 160 ft. 4½ in.
Javelin—Larry Goins, So. Calif. ..... 212 ft. 7¾ in.
Pole vault—Lyle Dickey, Oregon State, and Walt Jensen, So. California (tie) ..... 14 ft.
Shot-put—Parry O'Brien, So. Calif. .. 54 ft. 9½ in.
Team—Southern California ..... 84½ pts.

Southwest

OUTDOOR

(At College Station, Texas)

100 yd.—William Stalter, Texas A. & M. 0:09.8
220—William Stalter 0:21.4
440—Donald Mitchell, Texas A. & M. 0:48.1
880—Bill Graf, Rice 1:55.3
Mile—Oliver Gatchell Jr., Arkansas 4:20.3
2 miles—James Brown Jr., Arkansas 9:24.4
120 hurdles—Val Joe Walker, S. M. U. 0:14.1
220 hurdles—William Bless, Texas A. & M. .. 0:23.2
440 relay—Texas A. & M. (Baker, Bless, Ragsdale, Stalter) 0:42.4
Mile relay—Texas A. & M. (Place, McCarty, Baker, Mitchell) 3:17.3
Broad jump—Charles Meeks, Texas 23 ft. 10¾ in.
High jump—Walter Davis, Texas A. & M. 6 ft. 6 in
Discus—Darrow Hooper, Texas A. & M. ..... 162 ft. 8¼ in.
Javelin—Raymond Marek, Texas .... 202 ft. 7½ in.
Pole vault—John Simpson, Texas A. & M. ..... 13 ft. 7 in.
Shot-put—Darrow Hooper ..... 54 ft. 7½ in.
Team—Texas A. & M. ..... 114½ pts.

Metropolitan (N. Y.) Association

OUTDOOR

(At Triborough Stadium, Randalls Island)

100 yd.—Joseph Schatzle, Manhattan 0:09.7
220—Joseph Schatzle 0:21.7
440—Dick Maiocco, N. Y. U. 0:48.4
880—Larry Ellis, N. Y. U. 1:56.7
Mile—Pat Duffy, Manhattan 4:23.4
2 miles—Bill Lucas, Manhattan 9:35
120 hurdles—William Schertzer, Manhattan 0:15.4
220 hurdles—Robert Hatch, N. Y. U. 0:24.7
Mile relay—Fordham (Lopez, Day, Albert, Smarro) 3:22.3
Broad jump—Robert Carty, Manhattan 22 ft. 11 in.
High jump—George Gates, St. John's 6 ft. 3⅝ in.
Discus—John Ogle, Manhattan ..... 146 ft. 9¾ in.
Hammer—Don Piteo, Manhattan .. 153 ft. 11⅜ in.
Javelin—Richard Orens, Brooklyn Coll. 171 ft. 9 in.
Pole vault—John McGrath and Paul Stekas, St. John's, and Richard Lynn, N. Y. U. (tie) ..... 12 ft.
Shot-put—John Ogle ..... 48 ft. 11¾ in.
Team—Manhattan ..... 100½ pts.

INDOOR

(At 102d Regiment Armory and South Field)

60 yd.—Lindy Remigino, Manhattan 0:06.5
600—Cyril Tyson, St. Francis 1:13.6
1,000—Robert McNeill, Manhattan 2:17.5
Mile—Larry Ellis, N. Y. U. 4:18.3
2 miles—Bill Lucas, Manhattan 9:22.6
60 high hurdles—James Harrington, Manhattan 0:07.7
Mile relay—Fordham (Ahern, Duer, Day, Albert) 3:24.7
2-mile relay—Fordham (Nolan, Brandstoetter, O'Connor, Keegan) 8:06.2
Broad jump—Robert Carty, Manhattan 23 ft. 4 in.
High jump—Jim Gilcrist, Manhattan 6 ft. 4⅜ in.
Pole vault—John McGrath, N. Y. U. .... 12 ft. 6 in.
Shot-put—John Ogle, Manhattan .... 48 ft. 1¼ in.
35-lb. weight—John Ogle ..... 51 ft. 10⅜ in.
Team—Manhattan ..... 89½ pts.

Southeastern

OUTDOOR

(At Birmingham, Ala.)

100 yd.—Joe Preston, La. State 0:09.8
220—Joe Preston 0:21.3
440—Bill Covington, La. State 0:48.7
880—Jack Paris, Mississippi 1:54.8
Mile—Alf Holmberg, Frank Albertson and John Trent, Tennessee (tie) 4:27.3
2 miles—Alf Holmberg 9:53.3
120 hurdles—Jack Demedicis, Auburn 0:14.4
220 hurdles—Marvin Cichowski, Alabama ... 0:23.4
Mile relay—Louisiana State (Venable, Covington, Holleman, Brock) 3:21.7
Broad jump—Buddy Fowlkes, Georgia Tech ..... 23 ft. 11⅜ in.
High jump—Herb Neff, Tennessee ..... 6 ft. 6½ in.
Discus—Jim Dillion, Auburn ..... 161 ft. 9¾ in.
Javelin—Jack Stroud, Tennessee .... 202 ft. 10¼ in.
Pole vault—Leroy Poucher, Florida ... 14 ft. 2⅞ in.
Shot-put—Carl Shield, Alabama ..... 50 ft. 2 in.
Team—Louisiana State ..... 47 pts.

Missouri Valley

OUTDOOR

(At Tulsa, Okla.)

100 yd.—Jim Ford, Drake 0:09.5
220—Jim Ford 0:21.9
440—James Lavery, Drake 0:48.2
880—Robert Brandeberry, Okla. A. & M. 1:55.9
Mile—Dewey Johnson, Drake 4:25.5
2 miles—Lonnie Dunkin, Okla. A. & M. 9:52
120 hurdles—Jim Philbee, Bradley 0:14.8
220 hurdles—Jim Philbee 0:24.6
440 relay—Drake (Ford, Nichols, Eiland, Lavery) 0:42.1
Mile relay—Houston (Gentry, Tomasco, Green, Slade) 3:21.8
Broad jump—Dick Robertson, Okla. A. & M. ..... 22 ft. 5 in.
High jump—Dick Robertson ..... 6 ft.
Discus—Carl Sundgren, Wichita ..... 135 ft. 8 in.
Javelin—Wayne Kroutil, Okla. A. & M. 191 ft. 5 in.
Pole vault—Gerald Peery, Okla. A. & M. ..... 13 ft.
Shot-put—Floyd Jack, Okla. A. & M. 45 ft. 3¾ in.
Team—Oklahoma A & M ..... 90½ pts.

Western

OUTDOOR

(At Evanston, Ill.)

100 yd.—Jesse Thomas, Michigan State..... 0:10
220—Joe Gonzales, Illinois..... 0:21.8
440—Cirilo McSween, Illinois..... 0:47.7
880—Don Makielski, Michigan State..... 1:56
Mile—Don McEwen, Michigan..... 4:09
2 miles—Don McEwen..... 9:23.8
120 hurdles—Bob Hocker, Purdue..... 0:14.8
220 hurdles—Jesse Thomas..... 0:23.8
Mile relay—Illinois (Swank, Ciders, Gilbertson, McSween)..... 3:21.7
Broad jump—Don Laz, Illinois..... 23 ft. 9 in.
High jump—Jim Harper, Indiana..... 6 ft. 3⅝ in.
Discus—Clifton Anderson, Indiana..... 155 ft. 3 in.
Pole vault—Don Laz..... 14 ft. 10 in.
Shot-put—Bob Carey, Michigan State..... 53 ft.
Team—Illinois..... 55½ pts.

INDOOR

(At Champaign, Ill.)

60 yd.—Joe Gonzales, Illinois..... 0:06.4
440—Cirilo McSween, Illinois..... 0:48.8
880—Leonard Truex, Ohio State..... 1:55.4
Mile—Leonard Truex..... 4:10.4
2 miles—Don McEwen, Michigan..... 9:10.7
70 low hurdles—Don Hoover, Michigan..... 0:08.1
70 high hurdles—Don Hoover..... 0:08.7
Mile relay—Illinois (Nast, Gilbertson, Swank, McSween)..... 3:21.3
Broad jump—Don Laz, Illinois..... 23 ft. 3¾ in.
High jump—Thomas Floyd, Illinois; James Harper, Indiana, and Ralph Schaefer, Ohio State (tie)..... 6 ft. 3½ in.
Pole vault—Don Laz..... 14 ft. 8 in.
Shot-put—Clifton Anderson, Indiana 53 ft. 3½ in.
Team—Illinois..... 50¾ pts.

Central Collegiate Conference

(Open meet)

(At Marquette University Stadium, Milwaukee)

100 yd.—Jim Ford, Drake..... 0:09.9
220 (turn)—Jim Ford..... 0:21.8
440—LeRoy Collins, Wisconsin..... 0:48.5
880—Stacey Siders, Illinois..... 1:53.3
Mile—Leonard Truex, Ohio State..... 4:14.4
2 miles—Bill McGuire, Missouri..... 9:07.7
120 hurdles—Jack Demedicis, Auburn..... 0:14.6
220 hurdles (turn)—Jack Greenwood, Kansas 0:24.2
440 relay—Iowa (Dietz, Henard, Sykes, Scott) 0:42.5
Mile relay—Notre Dame (Hastings, Feltes, Wagner, Lepry)..... 3:20.8
Broad jump—Laddie Stovall, Missouri 23 ft. 5⅝ in.
High jump—J. Lewis Hall, Jr., Florida 6 ft. 6¼ in.
Discus—Jim Dillion, Auburn..... 161 ft. 2¾ in.
Javelin—John Murphy, Notre Dame.. 193 ft. 4 in.
Pole vault—Don Laz, Illinois..... 14 ft. 3⅝ in.
Shot-put—John Vishnevsky, Marquette 50 ft. ½ in.
Team—Illinois..... 40 pts.

Central A. A.

OUTDOOR

(At Morgan State Stadium, Baltimore, Md.)

100 yd.—Arthur Bragg, Morgan State..... 0:09.7
220—Arthur Bragg..... 0:22
440—George Rhoden, Morgan State..... 0:47.6
880—James Bruce, Howard..... 1:57.5
Mile—James Bruce..... 4:32.2
2 miles—Leon Kess, Morgan State..... 10:12.8
120 hurdles—Lester Scott, Morgan State.... 0:14.5
220 hurdles—Donald Leek, No. Car. Coll..... 0:25.4
Mile relay—Morgan State (Triplet, Morgan S. LaBeach, Rhoden)..... 3:16
Sprint medley relay—Howard (Blackman, Young, Payne, Bruce)..... 3:28.5
Broad jump—Lance Thompson, Morgan State..... 23 ft. ¾ in.
High jump—Archie Dabney, No. Carolina A. & T., and Lance Thompson..... 6 ft.
Discus—James Cooke, Lincoln..... 142 ft. 1½ in.
Javelin—Hiawatha Windley, St. Paul..... 183 ft.
Pole vault—Charles Bryant, Howard... 12 ft. 6 in.
Shot-put—Andrew Rodez, Virginia Union..... 48 ft. 10½ in.
Team—Morgan State..... 67⅓ pts.

Mitchell Dogs One, Two

High Sheriff and Bayou Cajun Boy, pointers owned by Mark Mitchell of Llano, Calif., finished first and second, respectively, in the United States Field Trial Club's open all-age stake at Hernando, Miss., last March. The one-hour quail stake attracted a field of 73 dogs.

Southern

OUTDOOR

(At Chapel Hill, N. C.)

100 yd.—Frank Scott, North Carolina..... 0:09.9
220—Piney Fields, Duke..... 0:21.9
440—Henry Shores, West Virginia..... 0:49.1
880—Al Buehler, Maryland..... 1:57
Mile—Tyson Creamer, Maryland..... 4:27.5
2 miles—Clyde Garrison, No. Car. State.... 9:46.1
120 hurdles—Garrett Fitzgibbons, North Carolina..... 0:14.8
220 hurdles—Tommy Reeves, Duke..... 0:24
Mile relay—North Carolina (Ray, McLain, J. Hamrick, Brigham)..... 3:22.5
Broad jump—Morty Cohen, Maryland..... 23 ft.
High jump—Dick Lentz, Maryland..... 5 ft. 10 in.
Discus—Fred Ogden, North Carolina 143 ft. 2¼ in.
Javelin—Donald Cochran, V. P. I.... 177 ft. 2¼ in.
Pole vault—John Conner, Duke..... 13 ft.
Shot-put—Jack Unterkofler, Maryland 47 ft. 5¾ in.
Team—Maryland..... 67.93 pts.

INDOOR

(At Chapel Hill, N. C.)

60 yd.—Dave Willis, North Carolina..... 0:06.5
440—John Tate, Duke..... 0:51.6
880—Al Buehler, Maryland..... 1:56.4
Mile—Tyson Creamer, Maryland..... 4:25
2 miles—Clyde Garrison, No. Car. State.... 9:46.1
70 low hurdles—Frank Scott, No. Carolina. 0:08
70 high hurdles—Tommy Reeves, Duke..... 0:08.9
Mile relay—North Carolina (Ray, Hamrick, Brigham, McLain)..... 3:32.9
Broad jump—Henry Poss, Duke..... 22 ft. 5¾ in.
High jump—Jack Moody, North Carolina, and William Barnham, Maryland (tie)..... 6 ft. 3 in.
Pole vault—Bob House, North Carolina..... 13 ft. 1½ in.
Shot-put—Jack Unterkofler, Maryland..... 46 ft. 11½ in.
Team—North Carolina..... 54 pts.

Big Seven

OUTDOOR

(At Columbia, Mo.)

100 yd.—Thane Baker, Kansas State..... 0:09.8
220—Thane Baker..... 0:21.3
440—Jerry Meador, Oklahoma..... 0:48
880—Don Crabtree, Oklahoma..... 1:54.2
Mile—Bill McGuire, Missouri..... 4:11.8
2 miles—Bill McGuire..... 9:34.5
120 hurdles—Jack Greenwood, Kansas..... 0:14.6
220 hurdles—Jack Greenwood..... 0:23.3
Mile relay—Kansas (Schutzel, Cain, Reiderer, Smith)..... 3:18
Broad jump—Laddie Stovall, Missouri 24 ft. 2½ in.
High jump—Bob Gordon, Missouri ... 6 ft. 5½ in.
Discus—Jim Robertson, Iowa State.. 153 ft. 5¾ in.
Javelin—George Holley, Colorado..... 201 ft. 9 in.
Pole vault—Leonard Kehl, Nebraska, and Jerry Lemon, Oklahoma (tie).. 13 ft. 8¾ in.
Shot-put—Clair Mayes, Oklahoma... 50 ft. 5¾ in.
Team—Missouri..... 129⅔ pts.

INDOOR

(At Kansas City, Mo.)

60 yd.—Augie Raso, Colorado..... 0:06.3
440—Jerry Meador, Oklahoma..... 0:50.5
880—Hobe Jones, Nebraska..... 1:56.4
Mile—Bill McGuire, Missouri..... 4:20.1
2 miles—Herb Semper, Kansas..... 9:11.3
60 low hurdles—Jack Greenwood, Kansas... 0:06.9
60 high hurdles—Jack Greenwood..... 0:07.5
Mile relay—Kansas (Schutzel, Cain, Smith, Hershberger)..... 3:24.2
Broad jump—Herb Hoskins, Kansas State..... 24 ft. 7¾ in.
High jump—Dick Jones, Oklahoma... 6 ft. 3¾ in.
Pole vault—Leonard Kehl, Nebraska.. 13 ft. 6½ in.
Shot-put—Wally Tanner, Colorado.... 50 ft. 11 in.
Team—Nebraska..... 40½ pts.

The Pacific Coast Conference topped the Western Conference, 77½ to 54½, in last year's track and field meet, held at Eugene, Oreg.

Yale's swimming team beat Harvard, 51–24, at Cambridge on March 10, 1951, to notch its seventy-first dual meet victory in succession.

INTERCOLLEGIATE CONFERENCE TEAM CHAMPIONS, 1951

WESTERN

Baseball—Ohio State
Basketball—Illinois
Fencing—Illinois
Golf—Ohio State
Gymnastics—Illinois
Swimming—Ohio State
Tennis—Michigan State
Track (indoor)—Illinois
Track (outdoor)—Illinois
Wrestling—Ohio State

PACIFIC COAST

Baseball—Southern California
Basketball—Washington
Golf (Northern Division)—Oregon (match play); Washington (tournament); (Southern Division)—Stanford (match play), Southern California (tournament)
Gymnastics—Southern California (So. Div.)
Swimming (No. Div.)—Washington; (So. Div.)—Stanford
Tennis (No. Div.)—Washington (match play and tournament); (So. Div.)—U. C. L. A. (match play)
Track—Southern California

MISSOURI VALLEY

Baseball—Houston
Basketball—Oklahoma A. & M.
Golf—Oklahoma A. & M.
Swimming—St. Louis
Tennis—Houston
Track—Oklahoma A. & M.

SOUTHERN

Baseball—Duke
Basketball—North Carolina State
Golf—Duke
Swimming—North Carolina
Tennis—North Carolina
Track (indoor)—North Carolina
Track (outdoor)—Maryland
Wrestling—Virginia Military Institute

SOUTHEASTERN

Baseball—Tennessee
Basketball—Kentucky
Golf—Georgia
Swimming—Georgia
Tennis—Tulane and Tennessee (tie)
Track—Louisiana State

BIG SEVEN

Baseball—Oklahoma
Basketball—Kansas State
Golf—Oklahoma
Swimming—Iowa State
Tennis—Oklahoma
Track (indoor)—Nebraska
Track (outdoor)—Missouri
Wrestling—Oklahoma

SOUTHWEST

Baseball—Texas and Texas A. & M. (tie)
Basketball—Texas, Texas A. & M., and Texas Christian (tie)
Fencing—Rice
Golf—Texas
Swimming—Texas
Tennis—Texas
Track—Texas A. & M.

Thorpe 'Greatest' Athlete

In 1950 the Associated Press polled the nation's sports experts on the "greats" in various fields during the past half-century. The list of winners:

Male athlete—Jim Thorpe.

Female athlete—Mildred D. Zaharias.

Baseball player—Babe Ruth.

Football player—Jim Thorpe.

Fighter—Jack Dempsey.

Basketball player—George Mikan.

Track performer—Jesse Owens.

Golfer—Bobby Jones.

Tennis player—Bill Tilden.

Swimmer—Johnny Weissmuller.

Race horse—Man o' War.

Greatest upset—The Boston Braves' four-straight world series victory over the Philadelphia Athletics in 1914.

Most dramatic event—Dempsey-Firpo heavyweight title fight at the Polo Grounds, New York, Sept. 14, 1923.

MALE ATHLETE-OF-THE-YEAR

(Associated Press poll)

Year	Winner	Sport
1931	Pepper Martin	Baseball
1932	Gene Sarazen	Golf
1933	Carl Hubbell	Baseball
1934	Dizzy Dean	Baseball
1935	Joe Louis	Boxing
1936	Jesse Owens	Track
1937	Don Budge	Tennis
1938	Don Budge	Tennis
1939	Nile Kinnick	Football
1940	Tommy Harmon	Football
1941	Joe DiMaggio	Baseball
1942	Frank Sinkwich	Football
1943	Gunder Hagg	Track
1944	Byron Nelson	Golf
1945	Byron Nelson	Golf
1946	Glenn Davis	Football
1947	Johnny Lujack	Football
1948	Lou Boudreau	Baseball
1949	Leon Hart	Football
1950	Jim Konstanty	Baseball

ROWING

ROWING goes back so far in history that there is no possibility of tracing it to any particular aboriginal source. The oldest rowing race still on the calendar is the "Doggett's Coat and Badge" contest among professional watermen of the Thames (England) that began in 1715. The first Oxford-Cambridge race was held at Henley in 1829. Competitive rowing in the United States began with matches between boats rowed by professional oarsmen of the New York water front. They were oarsmen who rowed the small boats that plied as ferries from Manhattan Island to Brooklyn and return, or who rowed salesmen down the harbor to meet ships arriving from Europe. Since the first salesman to meet an incoming ship had some advantage over his rivals, there was keen competition in the bidding for fast boats and the best oarsmen. This gave rise to match races for a purse or a side bet on many occasions. The first of such races was held in June, 1811, in four-oared gigs.

Amateur boat clubs sprang up in the United States between 1820 and 1830 and seven students of Yale joined together to purchase a four-oared lap-streak gig in 1843. The first Harvard-Yale race was held Aug. 3, 1852, on Lake Winnepesaukee, N. H. The first time an American college crew went abroad was in 1869 when Harvard challenged Oxford and was defeated on the Thames. There were early college rowing races on Lake Quinsigamond, near Worcester, Mass., and on Saratoga Lake, N. Y., but the Intercollegiate Rowing Association, in 1895, settled on the Hudson, at Poughkeepsie, as the setting for the annual "Poughkeepsie Regatta." In 1950 the I.R.A. shifted its classic to Marietta, Ohio. The National Association of Amateur Oarsmen, organized in 1872, has conducted annual championship regattas since that time. The first rowing races were held with lap-streak gigs but shells came into general favor about a century ago. The outrigger was invented in 1830 by Clasper, an Englishman. Yale used the sliding seat in 1870.

Rowing Statistics

Source: From *American Rowing*, Copyright by Robert F. Kelley; courtesy of G. P. Putnam's Sons

Yale-Harvard Varsity Race Record

Rowed at Centre Harbor, N. H., in 1852; Springfield, Mass., in 1855, 1872–73, 1876–77; Worcester, Mass., 1859 to 1870; Saratoga Lake, N. Y., 1874–75; New London, Conn., 1878 to 1895, 1898 to 1916, 1919 to 1941, and since 1947; triangular race at Poughkeepsie, N. Y., in 1897 with Cornell victor in 20:34; Derby, Conn., in 1918, 1942, and Boston, Mass., in 1946. Course was 2 miles in 1852; 3 miles from 1855 to 1875, and 4 miles thereafter.

Year	Winner	Time
1852	Harvard	[1]
1855	Harvard	22:00
1859	Harvard	19:18
1860	Harvard	18:53
1864	Yale	19:01
1865	Yale	18:42½
1866	Harvard	18:43¼
1867	Harvard	18:12¾
1868	Harvard	17:48½
1869	Harvard	18:02
1870	Harvard	20:30[2]
1872	Harvard	16:57
1873	Yale	16:59
1874[3]	Harvard	16:56
1875	Harvard	17:05
1876	Yale	22:02
1877	Harvard	24:36
1878	Harvard	20:44¾
1879	Harvard	22:15
1880	Yale	24:27
1881	Yale	22:13
1882	Harvard	20:47½
1883	Harvard	25:46½
1884	Yale	20:31
1885	Harvard	25:15½
1886	Yale	20:42
1887	Yale	22:56
1888	Yale	20:10
1889	Yale	21:30
1890	Yale	21:29
1891	Harvard	21:23
1892	Yale	20:48
1893	Yale	25:01½
1894	Yale	23:45½
1895	Yale	21:30
1897	Yale	20:44
1898	Yale	24:02
1899	Harvard	20:52½
1900	Yale	21:12⅘
1901	Yale	23:37
1902	Yale	20:20
1903	Yale	20:19⅘
1904	Yale	21:40½
1905	Yale	22:33½
1906	Harvard	23:02
1907	Yale	21:10
1908[4]	Harvard	24:10
1909	Harvard	21:50
1910	Harvard	20:46½
1911	Harvard	22:44
1912	Harvard	21:43½
1913	Harvard	21:42
1914	Yale	21:16
1915	Yale	20:52
1916	Harvard	20:02
1917	No race	
1918[5]	Harvard	10:58
1919[6]	Yale	21:42⅘
1920	Harvard	23:11
1921	Yale	20:41
1922	Yale	21:53
1923	Yale	22:10
1924	Yale	21:58⅗
1925	Yale	20:26
1926	Yale	20:1⅘
1927	Harvard	22:35⅗
1928	Yale	20:21⅗
1929	Yale	21:20
1930	Yale	20:09⅗
1931	Harvard	22:21
1932	Harvard	21:29
1933	Harvard	22:46⅗
1934	Yale	19:51⅗
1935	Yale	20:19
1936	Harvard	20:19
1937	Harvard	20:02
1938	Harvard	20:20
1939	Harvard	20:48⅗
1940	Harvard	21:38
1941	Harvard	20:40
1942[7]	Harvard	10:09⅗
1943–45	No races	
1946[8]	Harvard	9:18
1947	Harvard	20:40
1948[9]	Harvard	19:21⅗
1949[10]	Yale	19:52⅘
1950	Harvard	21:36⅗
1951	Harvard	21:26

[1] Harvard won by 3 to 4 lengths. [2] Yale ran into Harvard at turn and was disqualified. [3] Yale did not finish, being disabled in collision. [4] Yale stroke taken from shell near 3-mile mark. [5] Race was informal; rowed at 2 miles on Housatonic. [6] Course was 110 feet less than 4 miles. [7] Rowed at 2 miles. [8] Rowed at 1¾ miles. [9] Both crews broke downstream record. [10] Both crews broke upstream record.

POUGHKEEPSIE REGATTA RECORD

(Varsity eight-oared shells—4 miles)

Rowed on Saratoga Lake (3 miles) 1898. Rowed on Lake Cayuga, Ithaca, N. Y. (2 miles) 1920. Racing suspended in 1917, 1918, 1919, 1933, and 1942 to 1946, inclusive. Rowed at 3 miles from 1921 to 1924, inclusive, and since 1947.

Year	Time	First	Second	Third	Fourth	Fifth	Sixth
1895	21:25	Columbia	Cornell				
1896	19:59	Cornell	Harvard	Pennsylvania	Columbia		
1897	20:47 4/5	Cornell	Columbia				
1898	15:51 1/2	Pennsylvania	Cornell	Wisconsin	Columbia		
1899	20:4	Pennsylvania	Wisconsin	Cornell	Columbia		
1900	19:44 3/5	Pennsylvania	Wisconsin	Cornell	Columbia	Georgetown	
1901	18:53 1/5	Cornell	Columbia	Wisconsin	Georgetown	Syracuse	Pennsylvania
1902	19:5 3/5	Cornell	Wisconsin	Columbia	Pennsylvania	Syracuse	Georgetown
1903	18:57	Cornell	Georgetown	Wisconsin	Pennsylvania	Syracuse	Columbia
1904	20:22 3/5	Syracuse	Cornell	Pennsylvania	Columbia	Georgetown	Wisconsin
1905	20:29	Cornell	Syracuse	Georgetown	Columbia	Pennsylvania	Wisconsin
1906	19:36 4/5	Cornell	Pennsylvania	Syracuse	Wisconsin	Columbia	Georgetown
1907	20:2 2/5	Cornell	Columbia	Navy	Pennsylvania	Wisconsin	Georgetown
1908	19:24 1/5	Syracuse	Columbia	Cornell	Pennsylvania	Wisconsin	
1909	19:2	Cornell	Columbia	Syracuse	Wisconsin	Pennsylvania	
1910	20:42 1/5	Cornell	Pennsylvania	Columbia	Syracuse	Wisconsin	
1911	20:10 4/5	Cornell	Columbia	Pennsylvania	Wisconsin	Syracuse	
1912	19:31 2/5	Cornell	Wisconsin	Columbia	Syracuse	Pennsylvania	Stanford
1913	19:28 3/5	Syracuse	Cornell	Washington	Wisconsin	Columbia	Pennsylvania
1914	19:37 4/5	Columbia	Pennsylvania	Cornell	Syracuse	Washington	Wisconsin
1915	19:36 3/5	Cornell	Stanford	Syracuse	Columbia	Pennsylvania	
1916	20:15 2/5	Syracuse	Cornell	Columbia	Pennsylvania		
1920	11:2 3/5	Syracuse	Cornell	Columbia	Pennsylvania		
1921	14:7	Navy	California	Cornell	Pennsylvania	Syracuse	Columbia
1922*	13:33 3/5	Navy	Washington	Syracuse	Cornell	Columbia	Pennsylvania
1923	14:3 1/5	Washington	Navy	Columbia	Syracuse	Cornell	Pennsylvania
1924	15:2	Washington	Wisconsin	Cornell	Pennsylvania	Syracuse	Columbia
1925	19:24 4/5	Navy	Washington	Wisconsin	Pennsylvania	Cornell	Syracuse
1926	19:28 3/5	Washington	Navy	Syracuse	Pennsylvania	Columbia	California
1927	20:57	Columbia	Washington	California	Navy	Cornell	Syracuse
1928	18:35 4/5	California	Columbia	Washington	Cornell	Navy	Syracuse
1929	22:53	Columbia	Washington	Pennsylvania	Navy	Wisconsin	
1930	21:42	Cornell	Syracuse	M. I. T.	California	Columbia	Washington
1931	18:54 1/5	Navy	Cornell	Washington	California	Syracuse	Pennsylvania
1932	19:55	California	Cornell	Washington	Navy	Syracuse	Columbia
1934	19:44	California	Washington	Navy	Cornell	Pennsylvania	Syracuse
1935	18:52	California	Cornell	Washington	Navy	Syracuse	Pennsylvania
1936	19:9 3/5	Washington	California	Navy	Columbia	Cornell	Pennsylvania
1937	18:33 3/5	Washington	Navy	Cornell	Syracuse	California	Columbia
1938	18:19	Navy	California	Washington	Columbia	Wisconsin	Cornell
1939†	18:12 3/5	California	Washington	Navy	Cornell	Syracuse	Wisconsin
1940	22:42	Washington	Cornell	Syracuse	Navy	California	Columbia
1941	18:53 3/10	Washington	California	Cornell	Syracuse	Princeton	Wisconsin
1947	13:59 1/5	Navy	Cornell	Washington	California	Princeton	Syracuse
1948	14:06 2/5	Washington	California	Navy	Cornell	M. I. T.	Princeton
1949	14:42 3/5	California	Washington	Cornell	Navy	Princeton	Pennsylvania

Seventh

1925—Columbia
1926—Wisconsin
1927—Pennsylvania
1928—Pennsylvania
1930—Pennsylvania
1931—Columbia
1932—Pennsylvania
1934—Columbia
1935—Columbia
1936—Syracuse
1937—Wisconsin
1938—Syracuse
1939—Columbia
1940—Wisconsin
1941—Rutgers
1947—Wisconsin
1948—Pennsylvania
1949—Wisconsin

Eighth

1926—Cornell
1930—Wisconsin
1931—Wisconsin
1932—M. I. T.
1940—Princeton
1941—M. I. T.
1947—M. I. T.
1948—Wisconsin
1949—Columbia

Ninth

1931—M. I. T.
1941—Columbia
1947—Pennsylvania
1948—Syracuse
1949—Syracuse

Tenth

1947—Rutgers
1948—Columbia
1949—Stanford

Eleventh

1947—Columbia
1948—Rutgers
1949—M. I. T.

Twelfth

1949—Rutgers

Swamped

1895—Pennsylvania
1897—Pennsylvania
1907—Syracuse
1929—M. I. T.
1929—Syracuse
1929—California
1929—Cornell
1930—Navy

* Record for three miles. † Record for four miles.

MARIETTA REGATTA

1950—Varsity (2 miles)—1, Washington (8:07.5); 2, California; 3, Wisconsin; 4, Stanford; 5, M. I. T.; 6, Columbia; 7, Cornell; 8, Pennsylvania; 9, Princeton; 10, Syracuse; 11, Rutgers; 12, Navy.

1951 (JUNE 16)

Varsity (2 miles)—1, Wisconsin (7:50.5); 2, Washington; 3, Princeton; 4, California; 5, Pennsylvania; 6, M. I. T.; 7, Stanford; 8, Cornell; 9, Syracuse; 10, Boston U.; 11, Columbia; 12, Navy.

OTHER ROWING CHAMPIONS, 1951

Source: C. Leverich Brett, Public Relations Officer, National Association of Amateur Oarsmen.

Intercollegiate

Date	Event	Winner	Where held	Miles	Time
Mar. 26	Oxford-Cambridge	Cambridge	London	4¼	20:50
April 14	Cambridge-Yale	Cambridge	Derby	1¾	8:22.4
April 21	Childs Cup	Penn.	Princeton	1¾	8:56.4
April 28	Blackwell Cup	Yale	New York	1¾	9:46.4
May 5	Stevenson Cup	Navy	Annapolis	1¾	8:53.3
May 5	Compton Cup	Princeton	Cambridge	1¾	9:12.3
May 12	Adams Cup	Harvard	Philadelphia	1 5/16	6:38.4
May 12	Carnegie Cup	Yale	Ithaca	2	10:35.8
May 12	Pacific Coast	Washington	Seattle	2¾	15:38.4
May 19	Eastern Assn.	Yale	Princeton	2,000 m.	6:18.4
May 19	Dad Vail	LaSalle (Phila.)	Cambridge	1 5/16	6:49
		I. R. A. REGATTA			
June 16	Junior varsity	California	Marietta	2	8:05.1
June 16	Freshman	Washington	Marietta	2	8:05.4
		HARVARD–YALE			
June 22	Junior varsity	Harvard	New London	2	10:08
June 22	Freshman	Harvard	New London	2	10:27.4
		150 POUNDS			
May 12	Goldthwait Cup	Yale	Cambridge	1 5/16	7:13.3
May 19	Eastern Assn.*	Penn.	Cambridge	1 5/16	6:43

* Wright Cup.

United States Championships

(At Worcester, Mass., July 21–22)

All races at a mile and a quarter unless otherwise designated

Single sculls—Robert Williams, Leander B. C., Hamilton, Ontario	8:35.2
Assn. single sculls—William Knecht, Vesper B. C., Philadelphia	7:59.3
¼-mile single sculls—Harold Finigan, Malta B. C., Philadelphia	1:32
Double sculls—Joseph Toland–William Knecht, Vesper B. C.	7:43.3
Quadruple sculls—Vesper Boat Club	7:12
Pair-oared shell with coxswain—Robert and Ambrose Callahan (Arthur Case, cox.), New York A. C.	8:52.3
Pair-oared shell without coxswain—John Kieffer–Charles Kain, Fairmount R. A., Philadelphia	8:33.1
4-oared shell with coxswain—West Side R. C., Buffalo	7:40
4-oared shell without coxswain—Detroit Boat Club	7:21
8-oared shells—West Side R. C.	6:40.6
Intermediate 8-oared shells—New York A. C.*	7:20.3
145-lb. single sculls—James Barker, Undine Barge Club, Philadelphia	8:43.2
145-lb. ¼-mile single sculls—James Barker	1:36
145-lb. double sculls—Richard Mahan–Gustave Constant, Vesper B. C.	8:06
145-lb. quadruple sculls—Undine Barge Club	7:14.1
145-lb. 4-oared shell with coxswain—West Side R. C.	7:55
145-lb. 8-oared shells—Detroit Boat Club	7:14.2
Team (Barnes Trophy)—Detroit Boat Club	101½ pts.

* Detroit B. C. finished first in 7:04.4, but was disqualified for using an ineligible oarsman.

Royal Canadian Henley*

(At Port Dalhousie, Ontario, July 25–28)

Championship singles—Jack Guest, Jr., Toronto Dons	8:18.2
Assn. singles—Robert Williams, Hamilton, Ont.	8:11.2
Open ¼-mile dash—Joseph McIntyre, Seattle T. C.	1:19
Sr. pair-oared shells—James Hewson–L. Cardwell, West Side R. C., Buffalo	8:25.2
Sr. doubles—Charles and Richard McIntyre, Seattle T. C.	7:40.3
Sr. fours with coxswain—Detroit Boat Club	7:35
Sr. fours without coxswain—Detroit Boat Club	7:27.4
Sr. eights—West Side Rowing Club	6:46.5
Sr. 155-lb. fours—Toronto Dons	7:56
Sr. 155-lb. eights—West Side R. C.	7:10
Sr. 145-lb. singles—James Barker, Undine B. C.	8:31
Sr. 145-lb. doubles—Robert Carbutt–Neil Smiley, Undine Barge Club	8:11
Sr. 145-lb. fours—West Side R. C.	7:51.2
Sr. 145-lb. eights—St. Catharines R. C.	7:11.1
Team—West Side R. C.	328 pts.

*The Henley distance is 1 5/16 miles.

British Henley

Diamond Sculls—Tony Fox, Pembroke College of Cambridge University

Grand Challenge Cup—Lady Margaret College of Cambridge University

Thames Challenge Cup—University of Pennsylvania's 150-pound crew

WEIGHT LIFTING, 1951

National A. A. U. Championships

(At Los Angeles, June 15–16)

	Pds.
Bantamweight—Joe De Pietro, Paterson, N. J.	640
Featherweight—George Yoshioka, Honolulu	650
Lightweight—Joe Pitman, York, Pa.	775
Middleweight—Pete George, Akron, Ohio	860
Light heavyweight—Stanley Stanczyk, York, Pa.	885
Middle heavyweight—Norbert Schemansky, Detroit	915
Heavyweight—John Davis, York, Pa.	1,062

World Championships

(At Milan, Italy, Oct. 26–28)

	Pds.
Bantamweight—Manhoud Namdjou, Iran	—
Featherweight—Saleh Halifa Gouda, Egypt	684
Lightweight—Ibrahim Shams, Egypt	756
Middleweight—Peter George, United States	872
Light heavyweight—Stanley Stanczyk, U. S.	885.5
Middle heavyweight—Norbert Schemansky, U. S.	940.5
Heavyweight—John Davis, United States	951.5
Team—United States	29 pts.

SKIING

Skis were devised for utility, to aid those who had to travel over snow. The Norwegians, Swedes, Lapps and other inhabitants of northern lands used skis for many centuries before skiing became a sport. Emigrants from these countries brought skis to the United States with them. The first skier of record in the United States was a mailman by the name of "Snowshoe" Thomson, born and raised in Telemarken, Norway, who came to the United States and, beginning in 1850, used skis through twenty successive winters in carrying mail from northern California to Carson Valley, Nevada.

Ski clubs sprang up about sixty years ago where there were Norwegian and Swedish settlers in Wisconsin and Minnesota and ski contests were held in that territory in 1886. On Feb. 21, 1904, at Ishpeming, Mich., a small group of skiers organized the National Ski Association that, with the rapid growth of the sport, now has more than 450 member clubs.

1951 CHAMPIONS

Source: Frank Elkins, *The New York Times.*

North American

MEN

Downhill—Ernie McCulloch, Sun Valley (Idaho) S. C.
Slalom—Guttorm Berge, Whitman (Wash.) College
Combined downhill and slalom—Guttorm Berge
Jumping—Evert Karlsson, Sweden

WOMEN

Downhill—Imogene Opton, Sun Valley S. C.
Slalom—Sally Neidlinger, Sun Valley S. C.
Combined downhill and slalom—Imogene Opton

United States

MEN

Jumping—Art Tokle, Norway S. C., Brooklyn
Cross-country—Ted Farwell, Montague, Mass.
Combined jumping and cross-country—Ted Farwell
Downhill (open)—Ernie McCulloch
Downhill (closed)—Jack Nagel, Sun Valley S. C.
Slalom (open and closed)—Guttorm Berge
Combined (open and closed)—Jack Nagel
Giant slalom—Ernie McCulloch

WOMEN

Downhill—Katy Rodolph, Sun Valley S. C.
Slalom—Katy Rodolph
Combined downhill and slalom—Katy Rodolph
Giant slalom—Mrs. Suzy Harris Rytting, Alta (Utah) S. C.

Long Jumps (Official American)

Year	Made by and place	Distance, in feet
1905	Gustave Bye, Red Wing, Minn.	106
1908	John Evenson, Ishpeming, Mich.	122
1910	August Nordby, Ishpeming, Mich.	140
1913	Lars Haugen, Steamboat Springs, Colo.	185
1917	Henry Hall, Steamboat Springs, Colo.	203
1919	Lars Haugen, Steamboat Springs, Colo.	214
1932	Hans Beck, Lake Placid, N. Y.	235
1934	John Elvrum, Big Pines, Calif.	240
1937	Alf Engen, Salt Lake City, Utah	242
1939	Alf Engen, Big Pines, Calif.	251
1939	Bob Roecker, Iron Mountain, Mich.	257
1941	Alf Engen, Iron Mountain, Mich.	267
1941	Torger Tokle, Leavenworth, Wash.	273
1941	Torger Tokle, Olympian Hill, Hyak, Wash.	288
1942	Torger Tokle, Iron Mountain, Mich.	289
1949	Joe Perrault, Iron Mountain, Mich.	297
1950	Gordon Wren, Steamboat Springs, Colo.	297
1950	Billy Olson, Iron Mountain, Mich.	297
1951	Austen Samuelstuen, Steamboat Springs	316

1952 U. S. OLYMPIC TEAMS

Men's Downhill and Slalom

Dick Buek, Soda Springs, Calif.
Brooks Dodge, Pinkham Notch, N. H.
Jim Griffith, Ketchum, Idaho
Verne Goodwin, Pittsfield, Mass.
George Macomber, West Newton, Mass.
Jack Nagel, Skykomish, Wash.
Jack Reddish, Salt Lake City, Utah
Darrell Robison, Salt Lake City, Utah

ALTERNATES

William Beck, Alan Fischer, Dave Lawrence, Jim Murphy

Women's Downhill and Slalom

Jannette Burr, Seattle, Wash.
Mrs. Andrea Mead Lawrence, Rutland, Vt.
Sally Neidlinger, Hanover, N. H.
Imogene Opton, North Conway, N. H.
Katy Rodolph, Hayden, Colo.
Mrs. Suzy Harris Rytting, Salt Lake City, Utah
Sandra Tomlinson, Sun Valley, Idaho
Betty Weir, Omaha, Nebr.

ALTERNATES

Madi Spriuger-Miller, Gladys Werner

Jumping

Ralph Bietila, Ishpeming, Mich.
Arthur Devlin, Lake Placid, N. Y.
Billy Olson, Eau Claire, Wis.
Joe Perrault, Ishpeming, Mich.
Wilburt Rasmussen, Ishpeming, Mich.
Art Tokle, New York

ALTERNATES

John Bednarz, Marvin Crawford, Dave Freeman, Clarence Hill, Don Packmeyer, Jim Running, Crosby Smith, Keith Wegeman

Nordic Combined

John Caldwell, Lydonville, Vt.
Ted Farwell, Montague, Mass.
Tom Jacobs, Middlebury College
Paul Wegeman, Denver University

ALTERNATES

Si Dunklee, George Hoviand, Jan Klaer, Charles Tremblay

Special Cross-Country

John Burton, Minneapolis
Robert Pidacks, University of Maine

Finn Sets Jumping Record

Tauno Luiro of Finland set a world long-jump record on skis when he soared 456 feet at Oberstdorf, Germany, on March 2, 1951 This mark is not recognized by the Federation Internationale de Ski, the sport's ruling body, because it was made on a hill more than 80 meters long.

The first official fencing academy was established in London during the reign of Henry the Fourth (1399–1413).

BOWLING

THE GAME OF bowling that is the favorite sport of millions of "keglers" in the United States is an indoor development of the more ancient outdoor game that survives as lawn bowling. The outdoor game is prehistoric in origin and probably goes back to Primitive Man and round stones that were rolled at some target. It is believed that a game something like nine-pins was popular among the Dutch, Swiss and Germans as long ago as A.D. 1200 at which time the game was played outdoors with an alley consisting of a single plank 12 to 18 inches wide along which was rolled a ball toward three rows of three pins each placed at the far end of the alley. When the first indoor alleys were built and how the game was modified from time to time are matters of dispute. Much of the confusion arises from a lack of certainty as to which game is meant, "bowls" or "bowling", one with a "jack" and the other with "pins", in historical passages.

It is supposed that the early settlers of New Amsterdam (New York City) being Dutch, they brought their two bowling games with them. About a century ago the game of nine-pins was flourishing in the United States but so corrupted by gambling on matches that it was barred by law in New York and Connecticut. Since the law specifically barred "nine-pins", it was eventually evaded by adding another pin and thus legally making it a new game. The genius who thought up that simple method of outwitting the law and putting a popular game in motion once more remained modestly anonymous. With the increase in the number of pins, the old diamond formation of nine-pins was abandoned for the triangle set-up of ten-pins that remains the rule to this day. Various organizations were formed to make rules for bowling and supervise competition in the United States but none was successful until the American Bowling Congress, organized Sept. 9, 1895, became the ruling body.

Bowling Statistics

Source: American Bowling Congress.

American Bowling Congress Tournament Records

Type of record	Holder	Score	Year
High team total	Birk Bros., Chicago	3234	1938
High team game	Tea Shop, Milwaukee	1186	1927
High doubles total	G. Zunker—F. Benkovic, Milwaukee	1415	1933
High doubles game	J. Gworek—H. Kmidowski, Buffalo	544	1946
High singles total	Lee Jouglard, Detroit	775	1951
High all events total	Max Stein, Belleville, Ill.	2070	1937
High 3 games in any event	Lee Jougiard, Detroit	775	1951

AMERICAN BOWLING CONGRESS CHAMPIONS

Year	Singles	Score	Doubles	Score
1929	Ad Unke, Milwaukee, Wis.	728	W. Klecz—P. Butler, Chicago, Ill.	1353
1930	Larry Shotwell, Covington, Ky.	774	J. Devine—G. Heup, Beloit, Mich.	1339
1931	Walter Lachowski, Erie, Pa.	712	E. Rafferty—C. Reilly, Philadelphia, Pa.	1316
1932	Otto Nitschke, Cleveland, Ohio	731	F. Benkovic—C. Daw, Milwaukee, Wis.	1358
1933	Earl Hewitt, Erie, Pa.	724	G. Zunker—F. Benkovic, Milwaukee, Wis.	1415
1934	Jerry Vidro, Grand Rapids, Mich.	721	G. Rudolph—J. Ryan, Waukegan, Ill.	1321
1935	Don Brokaw, Canton, Ohio	733	C. Summerix—H. Souers, Akron, Ohio	1348
1936	Charles Warren, Springfield, Ill.	735	A. Slanina—M. Straka, Chicago, Ill.	1347
1937	Gene Gagliardi, Mt. Vernon, N. Y.	749	V. Gibbs, Kansas City, Mo.—N. Burton, Dallas, Texas	1359
1938	Knute Anderson, Moline, Ill.	746	D. Johnson—F. Snyder, Indianapolis, Ind.	1337
1939	Jim Danek, Forest Park, Ill.	730	P. Icuss—M. Fowler, Steubenville, Ohio	1405
1940	Ray Brown, Terre Haute, Ind.	742	H. Freitag—J. Sinke, Chicago, Ill.	1346
1941	Fred Ruff, Belleville, Ill.	745	W. Lee—R. Farness, Madison, Wis.	1346
1942	John Stanley, Cleveland, Ohio	756	E. Nowicki—G. Baier, Milwaukee, Wis.	1377
1946	Leo Rollick, Los Angeles, Calif.	737	J. Gworek—H. Kmidowski, Buffiao, N. Y.	1366
1947	Junie McMahon, Chicago	740	Ed Doerr, Jr.—Len Springmeyer, St. Louis	1350
1948	Lincoln Protich, Akron, Ohio	721	J. Towns—W. Sweeney, Chicago	1361
1949	Bernard Rusche, St. Bernard, Ohio	716	D. Van Boxel, Green Bay—E. Bernhardt, Sturgeon Bay	1332
1950	Everett Leins, Aurora, Ill.	757	W. Ebosh-E. Linsz, Cleveland	1325
1951	Lee Jougiard, Detroit, Mich.	775	Bob Benson—Ed Marshall, Lansing, Mich.	1334

American Bowling Congress Champions (cont.)

Year	All-events	Score	Team	Score
1929	Otto Stein, Jr., St. Louis, Mo.	1974	Hub Recreation, Joliet, Ill.	3063
1930	George Morrison, Chicago, Ill.	1985	Graff & Son, Kalamazoo, Mich.	3100
1931	Mike Mauser, Youngstown, Ohio	1966	S & L Motor, Chicago, Ill.	3013
1932	Hugh Stewart, Cincinnati, Ohio	1980	Jefferson Clothiers, Dayton, Ohio	3103
1933	Gil Zunker, Milwaukee, Wis.	2060	Flaig Opticians, Covington, Ky.	3021
1934	Walt Reppenhagen, Detroit, Mich.	1972	Strohs, Detroit, Mich.	3039
1935	Ora Mayer, San Francisco, Calif.	2022	Wolfe Tire Service, Niagara Falls, N. Y.	3020
1936	John Murphy, Indianapolis, Ind.	2006	Falls City Hi-Bru, Indianapolis, Ind.	3033
1937	Max Stein, Belleville, Ill.	2070	Krakow Furniture, Detroit, Mich.	3118
1938	Don Beatty, Jackson, Mich.	1978	Birk Bros., Chicago, Ill.	3131
1939	Joe Wilman, Chicago, Ill.	2028	Fife Electric, Detroit, Mich.	3151
1940	Fred Fisher, Buffalo, N. Y.	2001	Monarch Beer, Chicago, Ill.	3047
1941	Harold Kelly, South Bend, Ind.	2013	Vogel Bros., Forest Park, Ill.	3055
1942	Stan Moskal, Saginaw, Mich.	1973	Budweiser, Chicago, Ill.	3131
1946	Joe Wilman, Chicago, Ill.	2054	Lla-da-mar Bowl, Santa Monica, Calif.	3023
1947	Junie McMahon, Chicago	1965	Eddie and Earl Linsz Cleveland, Ohio	3032
1948	Ned Day, West Allis, Wis.	1979	Washington Shirts, Chicago	3007
1949	John Small, Chicago	1941	Jimmie Smith's, South Bend, Ind.	3027
1950	Frank Santore, Long Island City N. Y.	1981	Pepsi-Cola, Detroit	2952
1951	Tony Lindeman, Detroit	2005	C. B. O'Malley, Oldsmobile, Chicago	3070

WOMAN'S INTERNATIONAL BOWLING CONGRESS CHAMPIONS

Source: Emma Phaler, Secretary, Woman's International Bowling Congress, Inc.

Year	Singles	Score	Doubles	Score
1930	Anita Rump, Fort Wayne	613	F. Trettin—M. Warmbier, Chicago	1173
1931	Mrs. Myrtle Schulte, St. Louis	650	Z. Baker—G. Pomeroy, Detroit	1145
1932	Audrey McVay, Kansas City, Mo.	668	M. Frank—E. Kirg, Chicago	1218
1933	Mrs. Sally Twyford, Aurora, Ill.	628	V Peters—M. Kite, Syracuse, N. Y.	1135
1934	Marie Clemensen, Chicago.	712	F Trettin—D. McQuade, Chicago	1190
1935	Marie Warmbier, Chicago	652	E. Haufler—B. Simon, San Antonio	1219
1936	Mrs. Ella Burmeister, Madison, Wis.	612	Mrs. A. Lindermann—Mrs. L. Baldy, Milwaukee	1116
1937	Mrs. Anna Gottstine, Buffalo	647	L. Franke—G. Weber, Fort Wayne	1230
1938	Mrs. Rose Warner, Waukegan, Ill.	622	F. Probert—E. Sablatnik, St. Louis	1215
1939	Helen Hengstler, Detroit	626	C. Powers—B. Reus, Grand Rapids	1133
1940	Mrs. Sally Twyford, Aurora, Ill.	626	T. Morris—D. Burmeister Miller, Chicago	1181
1941	Nancy Huff, Los Angeles	662	J. Pittinger—M. J. Hogan, Los Angeles	1155
1942	Tillie Taylor, Newark, N. J.	659	S. Hartrick—C. Allen, Detroit	1204
1946	Val Mikiel, Detroit	682	V. Focazio—P. Dusher, Niagara Falls, N. Y.	1251
1947	Agnes Junker, Indianapolis, Ind.	650	Candice Miller—E. Beard, Ft. Wayne, Ind.	1245
1948	Shirlee Wernecke, Chicago	696	M. Cass, Alhambra—M. Mathews, Long Beach, Calif.	1188
1949	Clara Mataya, St. Louis	658	Ann Elyasevich—Estelle Svoboda, Chicago	1223
1950	Cleo Stalkamp, Newport, Ky.	669	Shirley Gantenbein—Flo Schick, Dallas	1216
1951	Ida Simpson, Buffalo, N. Y.	633	Esther Cook—Alma Denini, Seattle	1170

Year	All-events	Score	Team	Score
1930	Mrs. Selva Twyford, Chicago	1727	Finucane Ladies, Chicago	2784
1931	Mrs M. Schulte, St. Louis	1742	Alberti Jewelers, Chicago	2748
1932	Marie Warmbier, Chicago	1807	Martin Breitt Realtors, St. Louis	2667
1933	Mrs. Sally Twyford, Aurora, Ill.	1765	Alberti Jewelers, Chicago	2334
1934	Mrs. Esther Ryan, Milwaukee	1763	Tommy Dolls Five, Cincinnati	2615
1935	Marie Warmbier, Chicago	1811	Alberti Jewelers, Chicago	2755
1936	Mrs. Ella Burmeister, Madison, Wis.	1683	Easty Five, Cleveland	2617
1937	Mrs. Louise Stockdale, Detroit	1761	The Heil Uniform Heat, Milwaukee	2535
1938	Dorothy Burmeister, Chicago	1843	The Heil Uniform Heat, Milwaukee	2735
1939	Ruth Troy, Dayton, Ohio	1721	Kornitz Pure Oil, Milwaukee	2613
1940	Mrs. Tess Morris Chicago	1777	Logan Square Buicks, Chicago	2630
1941	Mrs. Sally Twyford, Aurora, Ill.	1799	Rovick Bowling Shoes, Chicago	2551
1942	Nina Van Camp, Chicago	1888	Logan Square Buicks, Chicago	2315
1946	Catherine Fellmeth, Chicago	1835	Silver Seal Soda, St. Louis	2721
1947	Marge Dardeen, Cincinnati	1826	Kornitz Pure Oil, Milwaukee	2937
1948	Virgie Hupfer, Burlington, Iowa	1850	Kathryn Creme Pact, Chicago	2812
1949	Cecelia Winandy, Chicago	1840	Gears by Enterprise, Detroit	2786
1950	Marion Ladewig, Grand Rapids, Mich.	1796	Fanitorium Majors, Grand Rapids, Mich.	2903
1951	LaVerne Haverley, Los Angeles	1788	Hickman Oldsmobile, Whirlaway, Indianapolis	2705

DUCK PINS

Source: A. L. Ebersole, Executive Secretary, National Duck Pin Bowling Congress.

WORLD RECORDS (MEN)

Individual

Event and record holder	Score
Single game—Eddie Funaro, New Haven, Conn.	239
3-game set—Arthur Lemke, Lowell, Mass.	542
4-game set—John Miller-Nova Hamilton, Baltimore (tie)	610
5-game set—William Brozey, Baltimore	785
6-game set—Mike Dziadik, Derby, Conn.	912
7-game set—Howard Parsons, Washington, D. C.	1,091
8-game set—Herman Ferri, New Haven, Conn.	1,167
9-game set—Mike Litrenta, Baltimore	1,339
10-game set—Winny Guerke, Baltimore	1,482
Season average—Nick Tronsky, New Britain, Conn.	134-14

Doubles

Single game—W. Christiano-J. Silk, Norwalk, Conn.	352
3-game set—R. Haines-A. Feiter, Baltimore	918
4-game set—Dawson Snyder-James Rosenberger, Baltimore	1,122
5-game set—W. Esser-J. Dreisch, Baltimore	1,425
6-game set—N. Hamilton-W. Guerke, Baltimore	1,624
7-game set—S. Witkowski, Middletown, Conn.-J. Genovesi, Rockville, Conn.	1,938
8-game set—E. Campbell-L. Seim, Annapolis, Md.	2,128
9-game set—N. Hamilton-W. Guerke, Baltimore	2,431
10-game set—J. Dietsch-J. Weinkam, Baltimore	2,752
Season average—H. Hipsley-J. Dietsch, Baltimore	254-10

Teams

Single game—Winchester Packard, Washington, D. C.	797
3-game set—Hick's Cafe, Baltimore	2,123
5-game set—Kelly Buick, Baltimore	3,348
10-game set—Park Circle Motor, Baltimore	6,460
15-game set—Popular Club-Recreation, Baltimore	9,420
Consecutive wins—Franks Tavern, Washington, D. C.	33
Season average—National Beer, Baltimore	638-42
3-man game—Middletown (Conn.) All-Stars	475
3-man set—Huguely's Bethesda (Md.) Stars	1,249
3-man 5-game set—C. Hildebrand, E. Pickus, N. Hamilton, Baltimore	1,957

WORLD RECORDS (WOMEN)

Individual

Event and record holder	Score
Single game—Ida Simmons Slack, Norfolk, Va.	203
3-game set—Flo Reynolds, Milford, Conn.	469
4-game set—Mrs. Ellen Holland, Norfolk, Va.	561
5-game set—Ida Simmons Slack, Norfolk, Va.	731
6-game set—Ida Simmons, Norfolk, Va.	835
7-game set—Ida Simmons Slack, Norfolk, Va.	992
8-game set—Elizabeth Barger, Baltimore	1,020
9-game set—Maxine Allen, Durham, N. C.	1,231
10-game set—Ida Simmons, Norfolk, Va.	1,355
Season average—Ida Simmons Slack	124-15

Doubles

Single game—Hazel Wells-Ruby Hovanic, Bridgeport, Conn.	338
3-game set—A. Levy-D. Smith, Norfolk, Va.	798
4-game set—E. Brose-T. McDonough, Baltimore	966
5-game set—A. Mullaney-A. Lucas, Baltimore	1,252
6-game set—I. Simmons-E. Leib, Baltimore	1,458
7-game set—E. Traber-M. Cleaveland, Atlanta, Ga.	1,694
8-game set—T. McDonough-E. Brose, Baltimore	1,905
9-game set—I. Simmons-E. Leib, Baltimore	2,139
10-game set—E. Traber-M. Cleaveland, Atlanta, Ga.	2,354
Season average—N. Zimmerman-M. Tuckey, Baltimore	217

Teams

Single game—Devon All-Star Girls, Devon, Conn.	721
3-game set—Star Laundry Girls, Norwalk, Conn.	1,965
5-game set—Lucky Strike Girls, Portsmouth, Va.	3,017
10-game set—Evening Star Champions, Washington, D. C.	5,438
Season average—Aristocrat Dairy, Baltimore	578-0
Consecutive wins—Bookies, Richmond, Va.	37
3-woman 7-game set—I. Simmons, J. White, E. Lieb, Baltimore	2,433

NATIONAL TOURNAMENT CHAMPIONS, 1951

	Score
All-events—Mike Litranta, Baltimore	1,339
Singles—Steve Witkowski, Middletown, Conn.	457
Doubles—Nick Tronsky, New Britain, Conn.-Harry Peters, Bristol, Conn.	911
Team—Forest Park, Baltimore	2,034

WOMEN

	Score
All-events—Betty Covelly, Baltimore	1,151
Singles—Lorraine Gulli, Washington, D. C.	431
Doubles—Anne Wissman, Darien, Conn.-Naomi Wargo, South Norwalk, Conn.	743
Team—Sena's Recreation Girls, Waterbury, Conn.	1,843

MIXED DOUBLES

Betty Covelly-Hank Lanasa, Baltimore	807

WATER SKIING, 1951

Source: American Water Ski Association

NATIONAL OPEN CHAMPIONSHIPS

(At Lake Placid, N. Y., Aug. 23–25)

	Total points
Men—Skillman Suydam, Orlando, Fla.	1300
Women—Willa McGuire, Winter Haven, Fla.	1500
Junior boys—Emilio Zamudio, Cuernavaca, Mexico	1500
Junior girls—Mary Lois Thornhill, Winter Haven, Fla.	1100
Veterans'—Henry Suydam, Orlando, Fla.	1220
Mixed doubles—Evie Wolford-Bruce Parker, Amityville, N. Y.	...

CANADIAN NATIONAL OPEN AND NORTH AMERICAN CHAMPIONSHIPS

(At Toronto, Aug. 30–Sept. 1)

Men—Skillman Suydam
Women—Willa McGuire
Junior boys—Emilio Zamudio
Junior girls—Sandra Swaney, Grand Rapids, Mich.
Veterans'—Bill Martin, Orlando, Fla.

Kerschner Takes Swim Marathon

Jerry Kerschner of Toronto won the Canadian National Exhibition's ten-mile swimming race for professionals at Toronto last August. Miss Vivian King of Winnipeg captured women's professional honors in a three-mile contest.

The Southeastern Conference beat the Southern Conference, 94 to 57, in their annual dual track and field meet in 1951. The competition was held at Raleigh, N. C.

Standard Measurements in Sports

BASEBALL

Home plate to pitcher's box—60 feet 6 inches.
Plate to second base—127 feet 3⅜ inches.
Distance from base to base (home plate included)—90 feet.
Size of bases—15 inches by 15 inches.
Pitcher's plate—24 inches by 6 inches.
Batter's box—6 feet by 4 feet.
Home plate—17 inches by 17 inches, cut to a point at rear.
Home plate to backstop—Not less than 60 feet.
Weight of ball—Not less than 5 ounces nor more than 5¼ ounces.
Circumference of ball—Not less than 9 inches nor more than 9¼ inches.
Bat—Must be round, not over 2¾ inches in diameter at thickest part, nor more than 42 inches in length, and entirely of hardwood in one piece.

FOOTBALL

* Length of field—120 yards.
Width of field—53⅓ yards (160 feet).
Height of goal posts—20 feet.
Height of crossbar—10 feet.
Width of goal posts—18 feet 6 inches, inside to inside, and not more than 19 feet 2 inches, outside to outside.
Length of ball—11¼ inches (long axis).
Circumference of ball—21.5 inches (middle); 28.5 inches (long axis).

* Includes 10 yards of end zone on either side.

LAWN TENNIS

Size of court—Rectangle 78 feet long and 27 feet wide (singles); 78 feet long and 36 feet wide (doubles).
Height of net—3 feet in center, gradually rising to reach 3-foot 6-inch posts at each side of court.
Ball—Shall be more than 2½ inches and less than 2⅝ inches in diameter and weigh more than 2 ounces and less than 2⅛ ounces.
Service line—21 feet from net.

POLO

Playing Field—300 yards long by 200 yards wide, if unboarded; 300 by 160, if boarded. In addition, there is an area of about 10 yards from the sidelines and about 30 yards from the back lines known as the safety zone.
Goals—8 yards wide and at least 10 feet high. The posts must be light enough to break if collided with.
Ball—Should not exceed 3¼ inches in diameter and should weigh from 4¼ to 4¾ ounces. Usually made of wood, but experiments have been made with plastic balls.
Ponies—No restrictions on height of mounts.

GOLF

Weight of ball—Not greater than 1.620 ounces.
Size of ball—Not less than 1.680 inches in diameter.
Velocity of ball—Not greater than 250 feet per second.
Hole—Shall be 4¼ inches in diameter and at least 4 inches deep.
Clubs—No restrictions on the size; 14 is the maximum number permitted in championship competition.

ICE HOCKEY

Size of rink—200 feet long by 85 feet wide (desired size).
Size of goal—6 feet wide by 4 feet in height.
Puck—1 inch thick and 3 inches in diameter; made of vulcanized rubber; weight—6¼ ounces (unofficial).
Length of stick—Not more than 53 inches from heel to end of shaft nor 14¾ inches from heel to end of blade. Blade should not exceed 3 inches in height, except goalkeeper's stick, which shall not exceed 3½ inches in height except at the heel, where it must not exceed 4½ inches.

BASKETBALL

(National Collegiate A. A. Rules)

Playing court—94 feet long by 50 feet wide (maximum dimensions); 74 feet long by 42 feet wide (minimum dimensions).
Baskets—Rings 18 inches in inside diameter, with white cord nets, 15 to 18 inches in length. Each ring is made of metal and is not more than ⅝ of an inch in diameter.
Height of basket ring—10 feet.
Weight of ball—Not less than 20 ounces nor more than 22.
Circumference of ball—No greater than 30 inches and not less than 29½.
Free-throw line—15 feet from the face of the backboard.

THE ASHES, 1950–51

Australia won four of the five test matches with England to retain "The Ashes," mythical trophy of world cricket supremacy. The term "The Ashes" originated from an obituary notice which appeared in the *Sporting Times* of London in 1882 after Australia had won the test match series for the first time. The notice read:

"In affectionate remembrance of English Cricket, which died at the (London) Oval 29th August, 1882. Deeply lamented by a large circle of sorrowing friends and acquaintances. R.I.P. (N.B.—The body will be cremated and the ashes taken to Australia.)"

BILLIARDS

APPARENTLY nobody knows where billiards originated. Some trace the game back to ancient Greece or early Egyptian days; others insist it originated in France or England in medieval times. Shakespeare must have believed the Egyptian tale, because in *Antony and Cleopatra* he has Cleopatra saying: "Let's to billiards; come, Charmian." There is an illustration of Louis XIV of France playing billiards in 1694 and using a shovel-shaped stick to set the "cue ball" in motion, from which it is evident that the pointed cue was a later development.

Certainly the game was popular in England and on the Continent in the 17th and 18th centuries and early settlers in North America are supposed to have introduced the game here. How to apply "english" to a billard ball was discovered by Jack Carr, an Englishman, in 1820. A Frenchman named Mingaud is credited with having invented the "draw" shot at about the same time and also to have devised leather tips for wooden cues. Championship competition, amateur and professional, is a modern development in billiards. The first formal professional tournament held in the United States took place in New York in 1863 with eight players competing. The first three-cushion tournament was held in St. Louis in 1878.

Billiards Statistics

Source: Press Service Bureau, The Billiard Congress of America.

World 18.2 Balk-line Champions

1903–05	Maurice Vignaux	1908	George B. Sutton	1921–22	Jake Schaefer, Jr.
1906	George F. Slosson	1909	Ora C. Morningstar	1923–24	Willie Hoppe
1906–07	George B. Sutton	1909	Calvin Demarest	1925	Edward Horemans*
1907	Willie Hoppe	1910	Harry P. Cline	1925	Jake Schaefer, Jr.
1907	Jacob Schaefer, Sr.	1910–20	Willie Hoppe	1926	Erich Hagenlacher
1908	George F. Slosson				

1927	Willie Hoppe		
1927	Welker Cochran		
1928	Edward Horemans		
1929–33	Jake Schaefer, Jr.		
1934	Welker Cochran†		

* Disputed match. Schaefer won play-off. † No competition since.

18.2 BALK-LINE RECORDS

Year	Holder		Points
1925	Jake Schaefer, Jr.	High run (game)	400
1925	Jake Schaefer, Jr.	High run match	432
1925	Jake Schaefer, Jr.	High Average	400
1925	Jake Schaefer, Jr.	High grand average tournament	57.14
1925	Jake Schaefer, Jr.	High grand average match	93.75
1926	Jake Schaefer, Jr.	High run exhibition match	585
1926	Jake Schaefer, Jr.	High grand average 2400 pts.	120
1926	Welker Cochran	High run exhibition	684

World 18.1 Balk-line Champions

1903–05	Maurice Vignaux	1908	Jacob Schaefer, Sr.	1909–11	Willie Hoppe
1906	Willie Hoppe	1908	George B. Sutton*	1912	George B. Sutton
1907	George B. Sutton	1908	George F. Slosson	1913	Ora C. Morningstar
1907	Willie Hoppe				

1914–26	Willie Hoppe		
1926–27	Jake Schaefer, Jr.		
1927	Willie Hoppe†		

* By forfeit. † No competition since.

18.1 BALK-LINE RECORDS

Year	Holder		Points
1926	Jake Schaefer, Jr.	High run in match play	212
1926	Jake Schaefer, Jr.	High single average in match play	60
1926	Jake Schaefer, Jr.	High grand average in match play	36
1927	Welker Cochran	High run in exhibition	353
1927	Welker Cochran	High single average in exhibition	150
1927	Welker Cochran	High grand average in exhibition	61

FINAL STANDINGS IN 1951 NATIONAL CHAMPIONSHIP TOURNAMENTS

(At Chicago)

Pocket

	W.	L.	HR	BG	TP
Joe Canton, Watervliet, N. Y.	9	1	110	4	1414
George Chenier, Toronto	7	3	123	3	1372
Irving Crane, Binghamton, N. Y.	7	3	102	6	1169
Chas. Cacciapaglia, Rockford, Ill.	6	4	59	13	1262
Bennie Allen, Kansas City	5	5	106	4	1151
Jim Moore, Albuquerque, N. M.	5	5	124	5	1095
Joe Diehl, Rockford, Ill.	4	6	111	16	1147
Nick Oliva, Decatur, Ill.	4	6	92	12	1061
Al Coslosky, Philadelphia	4	6	72	8	1007
Onofrio Lauri, Brooklyn	3	7	81	10	1094
Joe Cosgrove, Atlanta, Ga.	1	9	52	25	1026

Three Cushions

	W.	L.	HR	BG	TP
Joe Chamaco, Mexico City	7	1	8	43	399
Art Rubin, Brooklyn	5	3	8	43	379
Joe Procita, Los Angeles	5	3	7	48	364
Harold Worst, Grand Rapids, Mich.	5	3	9	35	361
Herbert Hardt, Chicago	5	3	11	31	359
Ray Kilgore, Los Angeles	3	5	9	44	347
Juan Navarra, Buenos Aires	3	5	7	40	329
Frank Scoville, Detroit	2	6	7	40	311
Mel Lundberg, Minneapolis	1	7	8	66	323

BOYS' CLUBS OF AMERICA CHAMPIONS, 1951

Senior—Salvatore Attardi, New York
Junior—Robert Legg, Princeton, Ind.
Team—Boys' Club of New York (Tompkins Square Building)

World Three-cushion Champions

1878	Sean Magnus
1899	W. H. Catton
1900	Eugene Carter
1900	Lloyd Jevne
1907	Harry P. Cline
1908	John Daly
1908	Thomas Hueston
1908-09	Alfredo DeOro
1910	Fred Eames
1910	Alfredo DeOro
1910	John Daly
1910	Thomas Hueston
1911	John Daly
1911	Alfredo DeOro
1912	Joe Carney
1912	John Horgan
1913-14	Alfredo DeOro
1915	George Moore
1915	William H. Huey
1916	Alfredo DeOro
1916	Charles Ellis
1916	Charles McCourt
1916	Hugh Heal
1916	George Moore
1917	Charles McCourt
1917	R. L. Cannafax
1917-18	Alfredo DeOro
1918-19	Augie Kieckhefer
1919	Alfredo DeOro
1919	R. L. Cannafax
1920	John Layton
1921	Augie Kieckhefer
1921-23	John Layton
1923	Tiff Denton
1924	R. L. Cannafax
1925	R. L. Cannafax
1926-27	Otto Reiselt
1927	Augie Kieckhefer
1928	Otto Reiselt
1928-29	John Layton
1930	John Layton
1931	Arthur Thurnblad
1932	Augie Kieckhefer
1933	Welker Cochran
1934	John Layton
1935	Welker Cochran
1936	Willie Hoppe
1937	Welker Cochran
1938	Welker Cochran
1939	Joe Chamaco
1940-44	Willie Hoppe
1944	Welker Cochran
1945-46	Welker Cochran
1947	Willie Hoppe
1948	Willie Hoppe
1949	Willie Hoppe
1950	Willie Hoppe
1951	Willie Hoppe

THREE-CUSHION RECORDS

High Runs

Year	Holder	Event	Points
1915	Charles Morin	Tournament (Pro)	18
1919	Tiff Denton	Tournament (World)	17
1925	John Layton	Interstate League	18
1927	Willie Hoppe	American League	20
1928	Willie Hoppe	Exhibition vs. C. C. Peterson	25
1930	Gus Copulos	Tournament (World)	17
1935	Willie Hoppe	Match play	15
1939	Joe Chamaco	National League*	18
1940	Tiff Denton	Tournament†	17
1945	Willie Hoppe	Match play‡	20

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

High Averages—Best Game

Year	Holder	Points		Event
1925	Otto Reiselt	50 in	16 innings	Interstate League
1925	Otto Reiselt	100 in	57 innings	Interstate League
1925	Otto Reiselt	150 in	104 innings	Interstate League
1930	John Layton	50 in	23 innings	Tournament
1939	Joe Chamaco	50 in	23 innings	National League*
1940	Jay N. Bozeman	50 in	23 innings	Tournament†
1945	Willie Hoppe	50 in	20 innings	Tournament‡
1945	Welker Cochran	60 in	20 innings	Match
1947	Willie Hoppe	60 in	21 innings	Match‡

* No safeties. † Safeties. ‡ No safeties; optional cue ball first shot of inning.

World Pocket Billiard Champions

1878-80	Cyrille Dion
1881	Gottlieb Wahlstrom
1882-83	Albert Frey
1884	J. L. Malone
1886-87	Alfred Frey
1887	J. L. Malone (f)
1887-88	Alfredo DeOro
1888	Frank Powers
1889	Albert Frey
1889	Alfredo DeOro
1890	H. Manning
1891	Frank Powers (f)
1892-94	Alfredo DeOro
1895	William Clearwater
1895	Alfredo DeOro
1896	Frank Stewart (f)
1897	Grant Eby
1897	Jerome Keogh
1898	William Clearwater
1898	Jerome Keogh
1899-1900	Alfredo DeOro
1901	Frank Sherman
1901	Alfredo DeOro
1902	William Clearwater
1902	Grant Eby
1903	Alfredo DeOro
1904	Alfredo DeOro
1905	Jerome Keogh (f)
1905	Alfredo DeOro
1905	Thomas Hueston (f)
1906	Thomas Hueston
1906	John Horgan
1906	Jerome Keogh
1907	Thomas Hueston
1908	Thomas Hueston
1908	Frank Sherman
1908	Alfredo DeOro
1909	Charles Weston
1909	John Kling
1910	Thomas Hueston
1910	Jerome Keogh
1910-12	Alfredo DeOro
1912	R. J. Ralph
1913	Alfredo DeOro
1913-15	Bennie Allen
1916	John Layton
1916-18	Frank Taberski
1919-24	Ralph Greenleaf
1925	Frank Taberski
1926	Ralph Greenleaf
1926	Erwin Rudolph
1926	Thomas Hueston
1927	Frank Taberski
1927-28	Ralph Greenleaf
1928	Frank Taberski
1929	Ralph Greenleaf
1929	Frank Taberski
1930	Erwin Rudolph
1930-32	Ralph Greenleaf
1933-34	Erwin Rudolph
1935	Andrew Ponzi
1936	James Caras
1937	Ralph Greenleaf
1938	James Caras
1939	James Caras
1940	Andrew Ponzi (l)
1941	Willie Mosconi (l)
1941	Erwin Rudolph (t)
1942	Irving Crane (m)
1942	Willie Mosconi (t)
1943	Andrew Ponzi (m)
1944	Willie Mosconi (m)
1945	Willie Mosconi
1946	Willie Mosconi
1946	Irving Crane (t)
1947	Willie Mosconi (m)
1948	Willie Mosconi (m)
1949	Jimmy Caras (t)
1950	Willie Mosconi (t)
1951	Willie Mosconi (t)

(f) Forfeit. (l) League play. (t) Tourney. (m) Match.

POCKET BILLIARD RECORDS

(14.1 Championship Game)

Event	Points	Holder	Year
Tournament—high run	126	Ralph Greenleaf	1929
Tournament—high run	125	Bennie Allen	1935
Tournament—high run	125	George Kelly	1935
Tournament—high run	125	Willie Mosconi	1945
Exhibition—high run	309	Irving Crane	1939
Exhibition—high run	309	Willie Mosconi	1945
Tournament—high single game average	63	Ralph Greenleaf	1929
Tournament—high grand average*	18.75	Willie Mosconi	1951

* 4½ by 9 table. † Tied by Willie Mosconi in 1946.

Event	Points	Holder	Year
Tournament—best game in innings	2	Ralph Greenleaf	1929†
Tournament (national)—best game in innings	2	Irving Crane	1949
Match—high run for single game	127	Willie Mosconi	1945
Match—high run for single game	127	James Caras	1946
Match—high run in continuous play	153	Andrew Ponzi	1934

National Amateur 18.2 Balk-line Champions

1909—H. A. Wright
1910—E. W. Gardner
1911—J. F. Poggenburg
1912—M. D. Brown
1913—Joseph Mayer
1914—E. W. Gardner
1915—Nathan Hall
1916—C. Huston
1917—Dave McAndless
1918—Percy Collins
1919—C. Heddon
1920—E. T. Appleby
1921—Percy Collins
1922—E. T. Appleby*
1923—Percy Collins†
1924—E. T. Appleby
1925—F. S. Appleby
1926–28—John Clinton
1929—E. T. Appleby‡
1929—Percy Collins‡
1929—M. C. Walgren‡
1930—Percy Collins
1931—E. T. Appleby
1932—Albert Poensgen§
1933—Albert Poensgen§
1934–40—Edmund Sousa

* International champion. † National 18.1 champion—F. S. Appleby. ‡ Amateur Billiard Association. § International champion.

National Amateur Three-cushion Champions

1910—Pierre Maupome
1911—Charles Morin
1919—Arthur Newman
1920—W. B. Huey
1921—Earl Lookabaugh
1922—Frank Flemming
1923—Robert M. Lord
1924—Frank Flemming
1925–26—Dr. A. J. Harris
1927—Dr. L. P. Macklin
1928—J. N. Bozeman
1929—Charles Jordan
1929—Max Shimon
1930—Joseph Hall
1930—Max Shimon
1930—R. B. Harper
1931—Frank Flemming
1931–35—Edward Lee
1936—Edward Lee*
1937—A. Primeau
1938—Gene Deardorff
1939—Gene Deardorff
1945–46—C. T. Vandenover†
1946—Edward Lee†
1946—Robert M. Lord†
1947—Robert M. Lord†
1948—Robert M. Lord†
1948—C. T. Vandenover‡
1948–49—Edward Lee†
1949–50—Edward Lee†

* World champion. † Events limited to athletic clubs. ‡ Match.

National Amateur Pocket Billiard Champions

1912—A. Hyman
1913—J. H. Shoemaker
1914—No tournament
1915–22—J. H. Shoemaker
1923—E. F. Reynolds
1924—J. H. Shoemaker
1925—Carl A. Vaughan
1926—Clarence Hurd
1927—J. H. Shoemaker
1928—J. Collins
1929—Cy. Yellin
1930—J. H. Shoemaker
1931—Robert Cole
1931—J. H. Shoemaker*
1932—E. Fagin
1932—J. H. Shoemaker*
1933—E. Fagin
1933—J. H. Shoemaker*
1934–35—J. H. Shoemaker
1936–37—E. C. Rogers
1938–40—Arthur Cranfield

* By challenge.

1951 WORLD TITLE TOURNEYS

Three Cushions

	W	L	HR	BG	TP	TI	GA
Willie Hoppe	6	0	11	35	300	267	1.12
Joe Chamaco	4	2	6	52	278	303	.91
Art Rubin	1	5	8	63	255	306	.83
Joe Procita	1	5	11	42	240	292	.82

Pocket

	W	L	HR	BG	TP	TI	GA
Willie Mosconi	6	0	98	3	900	48	18.75
Irving Crane	2	4	68	12	583	66	8.8
George Chenier	2	4	63	10	494	74	6.6
Joe Canton	2	4	68	12	483	67	7.2

Key to abbreviations—W–won; L–lost; HR–high run; BG–best game; TP–total points; TI–total innings; GA–grand average.

INTERCOLLEGIATE CHAMPIONS, 1951

Three-cushion—Larry Gray, Michigan
Straight-rail—Conrado Roa, Michigan
Pocket—Leroy Kinman, E. Kentucky State College

Keyshot Team

Three-cushion—Michigan
Straight-rail—Utah
Pocket—Notre Dame
Co-ed pocket—South Dakota State

WRESTLING, 1951

World Free-Style Championships

(At Helsinki, Finland)

Flyweight—Ali Yucel, Turkey
Bantamweight—Nasuh Akur, Turkey
Featherweight—Nureddin Zafar, Turkey
Lightweight—Olle Anderberg, Sweden
Welterweight—Celal Atik, Turkey
Middleweight—Hardar Zafer, Turkey
Light heavyweight—Yasur Dogu, Turkey
Heavyweight—Bertil Antonsson, Sweden
Team—Turkey (41 points)

National A. A. U. Championships

(At Cedar Falls, Iowa)

115 lb.—George Creason, Long Island Grapplers
121 lb.—John Lee, Harvard Varsity Club, Cambridge, Mass.
128 lb.—Gene Lybbert, Iowa State Teachers
136 lb.—Bill Armstrong, Oklahoma A. & M.
145 lb.—Bob Hoke, East Lansing, Mich.
155 lb.—Keith Young, Iowa State Teachers
165 lb.—Bill Smith, Iowa State Teachers
175 lb.—Louis Holland, Laramie, Wyo.
191 lb.—Harry Lanzi, Toledo Y.M.C.A.
Heavyweight—Carl Abell, Broadway Y.M.C.A., Cleveland
Team—Iowa State Teachers (32 points)

(For National Collegiate A. A. and Eastern Intercollegiate Association champions see index.)

Randle Entry Wins Again

Real Huntsman, owned by the Randle Brothers of Wichita, Kans., won the $25,000 American Greyhound Derby at the Taunton (Mass.) dog track for the second year in a row in 1951. The 3-year-old earned $15,000 and equalled his own track record of 38 2/5 seconds for the 675-yard course.

Columbia's 1950–51 basketball team went through its regular season without a setback to become the first quintet in the history of the college to compile an unbeaten record. The team won twenty-two in a row last season and thirty-one in succession over two campaigns before it was stopped by Illinois in the 1951 N. C. A. A. playoffs.

DOG SHOWS

Source: The American Kennel Club.

Morris and Essex Kennel Club Exhibition

(Madison, New Jersey)

Year	Best in show	Breed	Owner
1927	Ch. Higgins' Red Pat	Irish setter	William W. Higgins
1928	Ch. Delf Discriminate of Pinegrade	Sealyham terrier	Pinegrade Kennels
1929	Ch. Little Emir	Pomeranian	Mrs. V. Matta
1930	Ch. Weltona Frizzette of Wildoaks	Fox terrier, wire	Mr. and Mrs. R. C. Bondy
1931	Ch. Fionne v Loheland of Walnut Hall	Great dane	Harkness Edwards
1932	Ch. Lone Eagle of Earlsmoor	Fox terrier, wire	Dr. and Mrs. S. Milbank
1933	Eppingeville of Blarney	Fox terrier, wire	John G. Bates
1934	Ch. Gunside Babs of Hollybourne	Sealyham terrier	S. L. Froelich
1935	Ch. Milson O'Boy	Irish setter	Mrs. Cheever Porter
1936	Ch. Mr. Reynal's Monarch	Harrier	Amory L. Haskell
1937	Ch. Sturdy Max	English setter	Maridor Kennels
1938	Ch. Ideal Weather	Old English sheep dog	Leonard Collins
1939	Ch. My Own Brucie	Cocker spaniel	H. E. Mallenthin
1940	Ch. Blakeen Jung Frau	Poodle, standard	Blakeen Kennels
1941	Ch. Nornay Saddler	Fox terrier, smooth	Wissaboo Kennels
1946	Ch. Benbow's Beau	Cocker spaniel	Robert A. Gusman
1947	Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1950	Ch. Tyronne Farm Clancy	Irish setter	Jack Spear
1951	Ch. Rock Falls Colonel	English setter	William T. Holt

Westminster Kennel Club Exhibition

(Madison Square Garden, New York, N. Y.)

Year	Best in show	Breed	Owner
1907-09	Ch. Warren Remedy	Fox terrier, smooth	Winthrop Rutherfurd
1910	Ch. Sabine Rarebit	Fox terrier, smooth	Sabine Kennels
1911	Ch. Tickle Em Jock	Scottish terrier	A. Albright, Jr.
1912	Ch. Kenmore Sorceress	Airedale terrier	William P. Wolcott
1913	Ch. Strathway Prince Albert	Bulldog	Alex H. Stewart
1914	Ch. Brentwood Hero	Old English sheep dog	Mrs. Tyler Morse
1915-16	Ch. Matford Vic	Fox terrier, wire	George W. Quintard
1917	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1918	Ch. Haymarket Faultless	Bull terrier	R. H. Elliot
1919	Ch. Briergate Bright Beauty	Airedale terrier	G. L. L. Davis
1920	Ch. Conejo Wycollar Boy	Fox terrier, wire	Mrs. Roy A. Rainey
1921	Ch. Midkiff Seductive	Cocker spaniel	William T. Payne
1922	Ch. Boxwood Barkentine	Airedale terrier	Frederic C. Hood
1923	No best in show award		
1924	Ch. Barberryhill Bootlegger	Sealyham terrier	Bayard Warren
1925	Ch. Governor Moscow	Pointer	Robert F. Maloney
1926	Ch. Signal Circuit	Fox terrier, wire	Halleston Kennels
1927	Ch. Pinegrade Perfection	Sealyham terrier	Frederic C. Brown
1928	Ch. Talavera Margaret	Fox terrier, wire	R. M. Lewis
1929	Land Loyalty of Bellhaven	Collie	Mrs. Florence B. Ilch
1930	Ch. Pendley Calling of Blarney	Fox terrier, wire	John G. Bates
1931	Ch. Pendley Calling of Blarney	Fox terrier, wire	John G. Bates
1932	Ch. Nancolleth Markable	Pointer	Giralda Farms
1933	Ch. Warland Protector of Shelterock	Airedale terrier	S. M. Stewart
1934	Ch. Flornell Spicy Bit of Halleston	Fox terrier, wire	Halleston Kennels
1935	Ch. Nunsoe Duc de la Terrace of Blakeen	Poodle	Blakeen Kennels
1936	Ch. St. Margaret Magnificent of Clairedale	Sealyham terrier	Clairedale Kennels
1937	Ch. Flornell Spicy Piece of Halleston	Fox terrier, wire	Halleston Kennels
1938	Daro of Maridor	English setter	Maridor Kennels
1939	Ferry v. Rauhfelsen of Giralda	Doberman pinscher	Giralda Farms
1940	Ch. My Own Brucie	Cocker spaniel	H. E. Mallenthin
1941	Ch. My Own Brucie	Cocker spaniel	H. E. Mallenthin
1942	Ch. Wolvey Pattern Edgerstoune	West Highland terrier	Mrs. John G. Winant
1943	Ch. Pitter Patter of Piperscroft	Miniature poodle	Mrs. P. H. B. Frelinghuysen
1944	Ch. Flornell Rare-Bit of Twin Ponds	Welsh terrier	Mrs. Edward P. Alker
1945	Shieling's Signature	Scottish terrier	Mr. and Mrs. T. H. Snethen
1946	Ch. Hetherington Model Rhythm	Fox terrier, wire	Mr. and Mrs. T. H. Carruthers III
1947	Ch. Warlord of Mazelaine	Boxer	Mr. and Mrs. R. C. Kettles, Jr.
1948	Ch. Rock Ridge Night Rocket	Bedlington terrier	Mr. and Mrs. W. A. Rockefeller
1949	Ch. Mazelaine's Zazarac Brandy	Boxer	Mr. and Mrs. John P. Wagner
1950	Ch. Walsing Winning Trick of Edgerstoune	Scottish terrier	Mrs. John G. Winant
1951	Ch. Bang Away of Sirrah Crest	Boxer	Dr. and Mrs. R. C. Harris

CYCLING

THE ORIGIN and early history of the sport of cycling probably should be sought in the law volumes that contain the court records of decisions in patent cases. There was much dispute and litigation over the priority of inventions and improvements in the development of the bicycle. The fundamental idea of a wheeled frame on which a man could stand or sit and propel himself along a road goes back as far as the time of the Ptolemies in Egypt, but nothing progressive was done about it until a Frenchman named de Sivrac, in 1769, invented a tricycle on which he sat and rolled along by pushing his feet against the ground. There were various two-wheeled and three-wheeled improvements developed by French, German and English experimenters in the next century or so. The frames were better; steering with the front wheel was a new feature; handlebars were of more convenient design and adjustable seats were added. But the rider still pushed himself along with his feet until, about 1820, somebody had the bright idea of rotating the front wheel with a geared device, the rider furnishing the power by pushing and pulling handlebars mounted on a spindle. Pedals came along about 1840 and, in the case of bicycles, were attached to the front wheel that grew to be much larger than the rear wheel. Solid rubber tires began to replace iron tires in 1869.

There was a long legal dispute about credit for the invention of the "safety bicycle" with two wheels of equal size and pedals attached to a sprocket that, through gears and a chain, applied power to the rear wheel but, in any case, the "safety" or modern bicycle had just about driven the old "high-wheeler" off the roads by 1890. Pneumatic tires were invented in 1888 by J. B. Dunlop, a Scotsman who was a practising veterinarian in Belfast, Ireland, and in a few years all the better bicycles were using pneumatic tires. But when Dunlop tried to patent his invention it was discovered that a stranger named R. W. Thomson had taken out an English patent on such an idea in 1845. The Pickwick Bicycle Club, founded in London, 1870, was the first bicycle organization. The League of American Wheelmen was organized in 1880.

WORLD RECORDS

Source: Otto Eisele, Associate Editor, *American Bicyclist.*

The Union Cycliste Internationale, world ruling body, made new provisions in 1948 for the setting of bicycle track records. Old records, now discarded, were based on the measuring line being 30 centimeters (11.8 inches) from the inside of the track. The new code calls for the measuring line to be 20 centimeters (7.8 inches) from the inside. Only six basic distances are now permitted, with the marks separated into two classes—amateur and professional. New standards were compiled from the old on the basis of the measuring line being 20 centimeters. No amateur world records have been announced.

OUTDOOR PROFESSIONAL

Unpaced Standing Start

Distance	Holder and country	Where made	Year	Time
1 kilometer	R. H. Harris, Great Britain	Milan	1949	1.09⅘
5 kilometers	F. Battesini, Italy	Milan	1928	6:21
10 kilometers	M. Archambaud, France	Milan	1937	12:53
20 kilometers	M. Archambaud, France	Milan	1937	25:59⅗
100 kilometers	M. de Benedetti, Italy	Milan	1942	2:20:44⅘
1 hour	F. Coppi, Italy	Milan	1942	28 mi. 805 yd.

INDOOR PROFESSIONAL

Unpaced Standing Start

1 kilometer	R. H. Harris, Great Britain	Brussels	1950	1:07

Motor-Paced*

1 hour	J. Lohmuller, Switz.	Paris	1948	44 mi. 78 yd.

* Third U. C. I. regulations (1933, etc.).

FORMER WORLD RECORDS

Unpaced Flying Start

Distance	Holder and country	Where made	Year	Time
¼ mile	Ivor Lawson, United States	Salt Lake City	1905	0:23 4/5
500 meters	L. Michard, France	Bordeaux	1932	0:29 4/5
½ mile	A. J. Clark, Australia	Saltair, Utah	1908	0:50 2/5
1 kilometer	F. Battesini, Italy	Milan	1938	1:04 3/5
¾ mile	Percy Lawrence, United States	Saltair, Utah	1908	1:23 3/5
1 mile	Alfred Goullet, Australia	Salt Lake City	1912	1:51

Unrestricted Motor-Paced

				Miles	Yards
12 hours	Hubert Opperman, Australia	Melbourne	1932	477	770
24 hours	Hubert Opperman, Australia	Melbourne	1932	860	367

Unpaced Standing Start

¼ mile	L. Faucheux, France	Arcachon	1936	0:27 4/5
500 meters	L. Faucheux, France	Bordeaux	1934	0:33 4/5
½ mile	L. Michard, France	Bordeaux	1931	0:56 1/5
1 kilometer	F. Battesini, Italy	Milan	1938	1:10
¾ mile	G. Renaudin, France	Bordeaux	1938	1:28
1 mile	G. Renaudin, France	Bordeaux	1938	2:00 3/5

Human Paced—Standing Start

				Time
½ mile	J. S. Johnson, United States	Catford, England	1896	0:54 2/5
1 kilometer	R. Pottier, France	Paris	1904	1:08 1/5
¾ mile	J. W. Stocks, Great Britain	London	1897	1:18 2/5
1 mile	Major Taylor, United States	Manhattan Beach, N. Y.	1898	1:41 2/5
50 miles	R. Palmer, Great Britain	London	1897	1:34:45 4/5

Hour Records

				Miles	Yards
Unpaced	F. Coppi, Italy	Milan	1942	28	805
Human-paced	J. W. Stocks, Great Britain	London	1897	32	1,085
Motor-paced (u)	Leon Vanderstuyft, Belgium	Montlhéry	1928	76	504
Motor-paced*	H. Breau, France	Montlhéry	1926	58	156
Motor-paced†	H. Grant, Great Britain	Paris	1932	56	929

(u) Unrestricted motor paced. * First U. C. I. regulations (1920–29). † Second U. C. I. regulations (1930, etc.).

WORLD CHAMPIONSHIPS, 1951

(At Milan, Italy, Aug. 25–Sept. 1)

Amateur sprint—Enzo Sacchi, Italy
Pro. sprint—Reginald H. Harris, England
Amateur pursuit—Nino De Rossi, Italy
Pro. pursuit—Antonio Bevilacqua, Italy
Amateur road—Gianni Ghidini, Italy
Pro. road—Ferdinand Kubler, Switzerland
Pro. motor-paced—Jan Pronk, Holland

U. S. AMATEUR CHAMPIONSHIPS

(At Columbus, Ohio, Aug. 4–5, 1951)

Open—Gus Gatto, San Jose, Calif.
Mile—Gus Gatto
2 miles—Joe Cirone, Alhambra, Calif.
5 miles—Ernie Seubert, Brooklyn
Jr. open—Vaughan Angell, Salt Lake City
Girls' open—Anna Piplak, Chicago

U. S. BANKED TRACK CHAMPIONS

(At San Jose, Calif., Sept. 22–23)

Senior—Dave Rhoades, Long Branch, Calif.
Junior—Dick Stoddard, Denver.

NATIONAL AMATEUR CHAMPIONS

Source: Amateur Bicycle League of America, Inc.

Year	Winner	Where held	Year	Winner	Where held
1921	Arthur Nieminsky, New York	Washington, D. C.	1937	Charles Bergna, New Jersey	Buffalo
1922	Carl Hambacher, New Jersey	Atlantic City	1939	Martin Deras, California	Columbus
1923	Charles Barclay, California	Chicago	1940	Furman Kugler, New Jersey	Detroit
1924	Charlie Winter, New York	Buffalo	1941	Marvin Thomson, Illinois	Pasadena, Calif.
1925	Edward Merkner, Illinois	St. Louis	1945	Ted Smith, New York	Chicago
1926	Edward Merkner, Illinois	Philadelphia	1946	Don Hester, California	Columbus
1927	Jimmy Walthour, Jr., New York	Louisville	1947	Ted Smith, New York	Philadelphia
1928	R. J. Connor, District of Columbia	Kenosha, Wis.	1948	Ted Smith, New York	Kenosha, Wis.
1929	Sergio Mattaini, New York	Newark, N. J.	1949	James Lauf, Maryland	San Diego, Calif.
1930	Bobby Thomas, Wisconsin	Keonsha, Wis.	1950	Robert Pfarr, Wisconsin	New Brunswick
1935	Cecil Hursey, Georgia	Atlantic City	1951	Gus Gatto, California	Columbus
1936	Jackie Simes, New Jersey	St. Louis			

AMATEUR BICYCLE LEAGUE OF AMERICA RECORDS

ROAD COMPETITION—SCRATCH

Distance, mi.	Time	Record-holder and where made	Date
1/4	:29 2/5	B. W. King, Atlantic City, N. J.	Sept. 16, 1922
1/3	:38 3/5	Charles Winters, Chicago, Ill.	Sept. 8, 1923
1/2	1:04 3/5	John Leahy, Louisville, Ky.	Sept. 11, 1927
1	2:02	Henry Surman, R. L. Guthridge, S. C. Haberle — Westfield, N. J.	Aug. 8, 1908
2	4:46 1/5	Theodore Becker, Louisville, Ky.	Sept. 10, 1927
3	7:18 2/5	Don Sheldon, Columbus, Ohio	Aug. 18, 1946
5	11:38	Vaughan Angell, Columbus, Ohio	Aug. 4, 1951
10	23:22 1/5	Gus Gatto, Columbus, Ohio	Aug. 5, 1951
15	48:40 2/5	Jackie W. Simes, Jr., Washington, D. C.	Oct. 11, 1936
20	45:22	A. E. Wahl, Buffalo, N. Y.	July 4, 1921
25	1:02:14	Charles R. Thomas, Tonawanda, N. Y.	Sept. 6, 1937
50	2:02:00	Leo Adams, Buffalo, N. Y.	July 14, 1935
100	4:33:25 1/5	Louis Maltese, Union City, N. J., to South Philadelphia, Pa.	June 6, 1926
125	6:20:20 4/5	Don Sheldon, Old Westbury, N. Y.	Oct. 19, 1947

POLO

Polo originated "somewhere east of Suez" but exactly where never has been determined. There is pictorial proof that it was played many centuries ago in Persia, Japan, China and Tibet, but it reached England by way of a border tribe in India known as the Manipuri. British army officers in India, about 1860, found the Manipuri playing polo and learned the game from them. The fact that the Manipuri used small native horses—they had no others—was the reason for the early height limit (14 hands) on polo mounts, from which arose the custom of calling them "polo ponies," which was abandoned in 1919.

In 1869 some officers of the 10th Hussars, returning from India, introduced the game in England and informal games were played with as many as eight players on a side. Formal competition at Hurlingham, the great shrine of the game, began in 1876 with five players on a side, which number was cut to four in 1882. In 1884 an outstanding English player by the name of John Watson invented the backhand stroke and much improved the tactics of the game.

James Gordon Bennett, Jr., noted American newspaper owner and editor, saw polo at Hurlingham in 1875, brought the implements to this country, had a carload of cow ponies sent up from Texas and promoted a game that was played indoors at the Dickel Riding Academy at Fifth Avenue and 39th Street, New York City, in 1876. Polo moved outdoors to the Jerome Park race course and other suitable places soon after. One field on which it was played, at Fifth Avenue and 110th Street, was taken over by the New York baseball team in the National League and that is why the field on which the "Giants" play ball, although there since have been two changes in site, still is called "the Polo Grounds."

Polo Statistics

Source: United States Polo Association.

INTERNATIONAL MATCHES

Great Britain vs. United States

1886 Won by Great Britain (10–4, 14–2) at Newport, R. I. **Great Britain:** No. 1, Capt. T. Hone; No. 2, Hon. R. Lawley; No. 3, Capt. Malcolm Little; Back, John Watson. **United States:** No. 1, Winthrop K. Thorne; No. 2, R. Belmont; No. 3, Foxhall P. Keene; Back, Thomas Hitchcock.

1902 Won by Great Britain (1–2, 6–1, 7–1) at Hurlingham. **Great Britain:** No. 1, Cecil P. Nickalls; No. 2, P. W. Nickalls and F. M. Freake; No. 3, Walter Buckmaster and George A. Miller; Back, Charles D. Miller and Walter Buckmaster. **United States:** No. 1, R. L. Agassiz and J. M. Waterbury, Jr.; No. 2, J. E. Cowdin and Lawrence Waterbury; No. 3, Foxhall P. Keene; Back, Lawrence Waterbury and R. L. Agassiz.

1909 Won by United States (9–5, 8–2) at Hurlingham. **United States:** No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Herbert H. Wilson and Harry Rich; No. 2, F. M. Freake; No. 3, P. W. Nickalls; Back, Lord Wodehouse and Capt. J. Hardress Lloyd.

1911 Won by United States (4½–3, 4½–3½) at Meadow Brook. **United States:** No. 1, Lawrence Waterbury; No. 2, J. M. Waterbury, Jr.; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards; No. 3, Capt. J. Hardress Lloyd; Back, Capt. Herbert H. Wilson.

1913 Won by United States (5½–3, 4½–4¼) at Meadow Brook. **United States:** No. 1, Lawrence Waterbury and Louis E. Stoddard; No. 2, J. M. Waterbury, Jr., and Lawrence Waterbury; No. 3, Harry Payne Whitney; Back, Devereux Milburn. **Great Britain:** No. 1, Capt. Leslie St. G. Cheape; No. 2, A. Noel Edwards and F. M. Freake; No. 3, Capt. R. G. Ritson; Back, Capt. Vivian N. Lockett.

1914 Won by Great Britain (8½–3, 4–2¾) at Meadow Brook. **Great Britain:** No. 1, Capt. H. A. Tomkinson; No. 2, Capt. Leslie St. G. Cheape; No. 3, Maj. F. W. Barrett; Back, Capt. Vivian N. Lockett. **United States:** No. 1, Rene LaMontagne; No. 2, J. M. Waterbury, Jr.; No. 3, Devereux

Milburn and Lawrence Waterbury; Back, Lawrence Waterbury and Devereux Milburn.

1921 Won by United States (11–4, 10–6) at Hurlingham. United States: No. 1, Louis E. Stoddard; No. 2, Thomas Hitchcock, Jr.; No. 3, J. Watson Webb; Back, Devereux Milburn. Great Britain: No. 1, Lt. Col. H. A. Tomkinson; No. 2, Maj. F. W. Barrett; No. 3, Lord Wodehouse; Back, Maj. Vivian N. Lockett.

1924 Won by United States (16–5, 14–5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson and Robert E. Strawbridge Jr.; Back, Devereux Milburn. Great Britain: No. 1, Maj. T. W. Kirkwood and Lt. Col. T. P. Melvill; No. 2, Maj. F. W. Hurndall and Maj. G. H. Phipps-Hornby; No. 3, Maj. E. G. Atkinson; Back, Lewis L. Lacey.

1927 Won by United States (13–3, 8–5) at Meadow Brook. United States: No. 1, J. Watson Webb; No. 2, Thomas Hitchcock, Jr.; No. 3, Malcolm Stevenson; Back, Devereux Milburn. Great Britain: No. 1, Capt. Claude E. Pert and Capt. R. George; No. 2, Maj. Austin H. Williams and Capt. J. P. Dening; No. 3, Capt. C. T. I. Roark; Back, Maj. E. G. Atkinson.

1930 Won by United States (10–5, 14–9) at Meadow Brook. United States: No. 1, Eric Pedley; No. 2, Earle A. S. Hopping; No. 3, Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Great Britain: No. 1, Gerald Balding; No. 2, Lewis L. Lacey; No. 3, Capt. C. T. I. Roark; Back, Humphrey P. Guinness.

1936 Won by United States (10–9, 8–6) at Hurlingham. United States: No. 1, Eric Pedley; No. 2, Michael G. Phipps; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Hesketh H. Hughes; No. 2, Gerald Balding; No. 3, Eric H. Tyrrell-Martin; Back, Humphrey P. Guinness.

1939 Won by United States (11–7, 9–4) at Meadow Brook. United States: No. 1, Michael G. Phipps; No. 2, Thomas Hitchcock, Jr.; No. 3, Stewart B. Iglehart; Back, Winston F. C. Guest. Great Britain: No. 1, Robert Skene; No. 2, Aidan Roark; No. 3, Gerald Balding; Back, Eric H. Tyrrell-Martin.

Argentina vs. United States

1928 Won by United States (7–6, 7–10, 13–7) at Meadow Brook. United States: No. 1, W. A. Harriman; No. 2, Thomas Hitchcock, Jr.; and E. A. S. Hopping; No. 3, Malcolm Stevenson and Thomas Hitchcock, Jr.; Back, Winston F. C. Guest. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson; No. 3, J. B. Miles; Back, Lewis L. Lacey.

1932 Won by United States (9–6, 7–8, 12–10) at Buenos Aires. United States: No. 1, Michael G. Phipps; No. 2, Elmer J. Boeseke, Jr.; No. 3, Winston F. C. Guest; Back, William Post, 2d. Argentina: No. 1, Arturo Kenny; No. 2, J. D. Nelson and Martin Reynal; No. 3, José Reynal; Back, Manuel Andrada.

1936 Won by Argentina (21–9, 8–4) at Meadow Brook. Argentina: No. 1, Luis Duggan; No. 2, Roberto Cavanaugh; No. 3, Andres Gazzotti; Back, Manuel Andrada. United States: No. 1, G. H. Bostwick; No. 2, Gerald Balding; No. 3, Thomas Hitchcock, Jr.; Back, John Hay Whitney.

1950 Won by Argentina (14–10, 11–7) at Buenos Aires. Argentina: No. 1, Juan Cavanagh; No. 2 Roberto Cavanagh; No. 3, Enrique Alberdi; Back, Juan Carlos Alberdi. United States: No. 1, Delmar Carroll; No. 2, Peter Perkins; No. 3, George K. Oliver; Back, Lewis Smith.

INDOOR CHAMPIONS, 1951

National senior—Red Bank (N. J.) P. C. (Phil Brady, Clarence C. Combs, Al Parsells)
National intercollegiate—Miami, Fla. (Charles Bernard, John Evans, Paul Heise)
Eastern 12-goal—Red Bank (Bill Whitehead, Clarence C. Combs, Steve Roberts)

VOLLEYBALL CHAMPIONS, 1951

A. A. U.—Los Angeles A. C.

U. S. VOLLEYBALL ASSOCIATION

Veterans'—Jamaica, N. Y.
Women's—Houston (Texas) Eagles
Intercollegiate—University of Mexico

NATIONAL OPEN FINAL, 1951

(At Westbury, N. Y., Sept. 30)

MILWAUKEE (6)	MEADOW BROOK (2)
1—Pedro Silvero	1—C. R. Leonard Jr.
2—Peter Perkins	2—C. C. Combs
3—George Oliver	3—A. L. Corey Jr.
Back—Bob Uihlein	Back—Al Parsells

SCORE BY PERIODS

Milwaukee	0	2	2	0	1	1	—6
Meadow Brook	0	0	1	0	1	0	—2

Goals—Milwaukee: Silvero 3, Perkins, Oliver, Uihlein. Meadow Brook: Combs, Corey.
Umpires—W. H. Gaylord and Cyril Harrison.
Referee—R. E. Strawbridge, Jr. Time of periods—7½ minutes.

OTHER OUTDOOR CHAMPIONS

East–West (at Libertyville, Ill.)—West
East–West (at Westbury, N. Y.)—West
National 20-goal—Arlington Farms P. C., Libertyville, Ill. (Billy Ylvisaker, Tom Cross, Cecil Smith, John Hulseman)

NATIONAL OPEN POLO CHAMPIONS, 1904–1950

Not held from 1905 to 1909, inclusive; 1911, 1915, 1917, 1918, and from 1942 to 1945, inclusive.

1904—WANDERERS
1—C. R. Snowden
2—J. E. Cowdin
3—J. M. Waterbury, Jr.
Back—L. Waterbury

1910—RANELAGH
1—R. N Grenfell
2—F. Grenfell
3—Earl of Rocksavage
Back—F. A. Gill

1912—COOPERSTOWN
1—F. S. von Stade
2—C. C Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1913—COOPERSTOWN
1—F. S. von Stade
2—C. C. Rumsey
3—C. P. Beadleston
Back—M. Stevenson

1914—MEADOW BROOK MAGPIES
1—N. L. Tilney
2—J. W. Webb
3—W. G. Loew
Back—H. Phipps

1916—MEADOW BROOK
1—H. Phipps
2—C. C. Rumsey
3—W. G. Loew
Back—D. Milburn

1919—MEADOW BROOK
1—F. H. Prince, Jr.
2—J. W. Webb
3—F. S. von Stade
Back—D. Milburn

1920—MEADOW BROOK
1—F. S. von Stade
2—J. W. Webb
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1921—GREAT NECK
1—L. E. Stoddard
2—R. Wanamaker, II
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1922—ARGENTINE
1—J. B. Miles
2—J. D. Nelson
3—D. B. Miles
Back—L. L. Lacey

1923—MEADOW BROOK
1—R. Belmont
2—T. Hitchcock, Jr.
3—R. E. Strawbridge, Jr.
Back—D. Milburn

1924—MIDWICK
1—E. G. Miller
2—E. L. Pedley
3—A. P. Perkins
Back—C. F. Burke

1925—ORANGE COUNTY
1—W. A. Harriman
2—J. W. Webb
3—M. Stevenson
Back—J. C. Cowdin

1926—HURRICANES
1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1927—SANDS POINT
1—W. A. Harriman
2—T. Hitchcock, Jr.
3—J. C. Cowdin
Back—L. E. Stoddard

1928—MEADOW BROOK
1—C. V. Whitney
2—W. F. C. Guest
3—J. B. Miles
Back—M. Stevenson

1929—HURRICANES
1—S. Sanford
2—Capt. C. T. I. Roark
3—J. W. Webb
Back—R. E. Strawbridge, Jr.

1930—HURRICANES
1—S. Sanford
2—E. L. Pedley
3—Capt. C. T. I. Roark
Back—R. E. Strawbridge, Jr.

1931—SANTA PAULA
1—A. Gazzotti
2—José Reynal
3—Juan Reynal
Back—M. Andrada

1932—TEMPLETON
1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1933—AURORA
1—S. H. Knox
2—J. P. Mills
3—E. T. Gerry
Back—E. J. Boeseke, Jr.

1934—TEMPLETON
1—M. G. Phipps
2—W. F. C. Guest
3—S. B. Iglehart
Back—R. R. Guest

1935—GREENTREE
1—G. H. Bostwick
2—T. Hitchcock, Jr.
3—G. Balding
Back—J. H. Whitney

1936—GREENTREE
1—G. H. Bostwick
2—G. Balding
3—T. Hitchcock, Jr.
Back—J. H. Whitney

1937—OLD WESTBURY
1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C. V. Whitney

1938—OLD WESTBURY
1—M. G. Phipps
2—C. Smith
3—S. B. Iglehart
Back—C V. Whitney

1939—BOSTWICK FIELD
1—G. H. Bostwick
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—E. H. Tyrrell-Martin

1940—AKNUSTI
1—G. S. Smith
2—R. L. Gerry, Jr.
3—E. T. Gerry
Back—A. L. Corey, Jr.

1941—GULF STREAM
1—J. H. A. Phipps
2—M. G. Phipps
3—C. S. von Stade
Back—A. L. Corey, Jr.

1946—HERRADURA
1—Gabriel Gracida
2—Guillermo Gracida
3—Alejandro Gracida
Back—José Gracida

1947—OLD WESTBURY
1—P. Silvero
2—C. C. Combs
3—S. B. Iglehart
Back—G. Oliver

1948—HURRICANES
1—L. Sheerin
2—P. Perkins
3—C. Smith
Back—S. Sanford

1949—HURRICANES
1—L. Sheerin
2—R Cavanaugh
3—C. Smith
Back—S. Sanford

1950—BOSTWICK FIELD
1—G. H. Bostwick
2—George Oliver
3—A. L. Corey, Jr.
Back—D. Milburn, Jr.

WATERBURY CUP FINAL, 1951

(At Westbury, N. Y., Oct. 8)

OAK BROOK (9)	BLIND BROOK (8)
1—Donald Beveridge	1—Stephen Sanford
2—William Mayer	2—Jules Romfh
3—Peter Perkins	3—Lewis Smith
Back—Roy Barry	Back—Ray Harrington

SCORE BY PERIODS

Oak Brook	3	2	0	3	0	1	—9
Blind Brook	2	2	0	2	0	2	—8

Goals—Oak Brook: By handicap 2, Beveridge, Mayer 3, Perkins, Barry 2. Blind Brook: Sanford, Romfh 4, Smith 2, Harrington.
Umpires—C. R. Harrison and Al Parsells. Referee—Devereux Milburn. Time of periods—7 1/2 minutes.

U. S. PRO TENNIS CHAMPIONS

1927–30—Vincent Richards
1931—William T. Tilden, II
1932—Karel Kozeluh
1933—Vincent Richards
1934—Hans Nusslein
1935—William T. Tilden, II
1936—Joe Whalen
1937—Karel Kozeluh
1938—Fred Perry
1939—Ellsworth Vines
1940—Don Budge
1941—Fred Perry
1942—Don Budge
1943—Bruce Barnes
1944—No tournament
1945—Welby Van Horn
1946–47—Bobby Riggs
1948—Jack Kramer
1949—Bobby Riggs
1951–51—Francisco Segura

SWIMMING

THERE IS THE ancient tale of Leander of Abydos swimming the Hellespont nightly to call on Helen of Sestos but nobody kept the time on his trips. However, Lord Byron swam one leg of the old Leander course, Sestos to Abydos, on May 3, 1810, in 1 hour 10 minutes. The famous British poet was a noted swimmer and once, in an endurance trial at Venice, was in the water for 4 hours 10 minutes. Distance swimming was the early type of competition. Captain Matthew Webb achieved fame by being the first to swim the English Channel—Dover to Calais—in August, 1875, in 21 hours 45 minutes. Many other swimmers, men and women, have conquered the Channel since that time. Gertrude Ederle, of New York City, was the first woman to accomplish the feat. Miss Ederle swam the Channel Aug. 6, 1926, in 14 hours 34 minutes, breaking the existing record at that time. Since then the record has been lowered by four or five men.

Regular competition at short as well as long distances and indoor as well as outdoor came with the development of such organizations as the Amateur Athletic Union and the building of indoor and outdoor swimming pools. Swimming has been on the Olympic program since the start of the modern Olympic Games at Athens in 1896.

WORLD RECORDS

Source: Official Amateur Athletic Union Swimming Rules and Records Book. Reprinted by courtesy of the publishers, the Amateur Athletic Union of the United States, 233 Broadway, New York, N. Y., and R. M. Ritter, Secretary, International Amateur Swimming Federation.

Accepted by the International Amateur Swimming Federation as of August, 1951.

MEN

FREE STYLE

Distance	Time	Course	Holder	Home country	Where made	Date
100 yd.	49.7 s.	25 yd.	Alan Ford	U. S.	New Haven, Conn.	Mar. 18, 1944
100 m.	55.4 s.	25 m.	Alan Ford	U. S.	New Haven	June 29, 1948
200 m.	2 m. 4.6 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 31, 1950
220 yd.	2 m. 5.5 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 31, 1950
400 m.	4 m. 26.9 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 31, 1950
440 yd.	4 m. 28.1 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 24, 1951
500 yd.	5 m. 12 s.	25 yd.	J. B. Marshall	Australia	New Haven	Mar. 24, 1951
500 m.	5 m. 43.7 s.	25 yd.	J. B. Marshall	Australia	New Haven	June 30, 1950
800 m.	9 m. 35.5 s.	50 m.	H. Furuhashi	Japan	New Haven	Feb. 17, 1951
880 yd.	9 m. 37.5 s.	55 yd.	J. B. Marshall	Australia	Los Angeles	Aug. 19, 1949
1,500 m.	18 m. 19 s.	50 m.	H. Furuhashi	Japan	Seattle	July 23, 1950
1 mi.	19 m. 49.4 s.	55 yd.	J. B. Marshall	Australia	Los Angeles	Aug. 16, 1949
					New Haven	July 7, 1950

Relays

400 yd.	3 m. 21.6 s.	25 yd.	Yale University	U. S.	New Haven	Feb. 17, 1951
			(R. Thoman, D. Sheff, W. Farnsworth, R. Reid)			
400 m.	3 m. 47.9 s.	25 m.	Yale University	U. S.	New Haven	Mar. 19, 1951
			(R. Thoman, D. Sheff, W. Farnsworth, R. Reid)			
800 yd.	7 m. 40.6 s.	25 yd.	Yale University	U. S.	New Haven	Mar. 24, 1951
			(W. Moore, J. McLane, D. Sheff, W. Farnsworth)			
800 m.	8 m. 33 s.	25 m.	National Team	France	Marseille, France	Aug. 2, 1951
			(J. Bernardo, W. Blioch, J. Boiteaux, A. Jany)			

BREAST STROKE

100 yd.	58.5 s.	25 yd.	Keith E. Carter	U. S.	Lafayette, Ind.	May 5, 1949
100 m.	1 m. 6.6. s.	25 m.	L. K. Meshisov	U.S.S.R.	Moscow	Jan. 7, 1951
200 yd.	2 m. 13.1 s.	25 yd.	R. L. Brawner	U. S.	Princeton, N. J.	Mar. 11, 1950
200 m.	2 m. 27.3 s.	25 m.	Herbert Klein	Germany	Munich	June 9, 1951

BACKSTROKE

100 yd.	56.8 s.	25 yd.	A. Kiefer	U. S.	Annapolis, Md.	Feb. 26, 1944
100 m.	1 m. 03.6 s.	25 m.	Allen M. Stack	U. S.	New Haven, Conn.	Feb. 4, 1949
150 yd.	1 m. 29.9 s.	25 yd.	Allen M. Stack	U. S.	New Haven, Conn.	May 5, 1949
200 m.	2 m. 18.5 s.	25 yd.	Allen M. Stack	U. S.	New Haven, Conn.	May 4, 1949

MEDLEY RELAY

(Back, breast, free style)

300 yd.	2 m. 49.1 s.	25 yd.	Univ. of Michigan	U. S.	Ann Arbor, Mich.	Feb. 21, 1948
			(H. Holiday, R. Sohl, R. Weinberg)			
300 m.	3 m. 12.3 s.	50 m.	Dauphins de Toulouse	France	Marseille	Sept. 16, 1946
			(G. Vallery, A. Nakache, A. Jany)			

WOMEN

FREE STYLE

Distance	Time	Course	Holder	Home country	Where made	Date
100 yd.	58.2 s.	25 m.*	Greta Andersen	Denmark	Svendborg	Feb. 24, 1949
100 m.	1 m. 4.6 s.	25 m.	W. DenOuden	Netherlands	Amsterdam	Feb. 27, 1936
200 m.	2 m. 21.7 s.	25 m.	R. Hveger	Denmark	Aarhus	Sept. 11, 1938
220 yd.	2 m. 22.6 s.	25 yd.*	R. Hveger	Denmark	Copenhagen	Apr. 23, 1939
300 yd.	3 m. 25.6 s.	25 yd.*	R. Hveger	Denmark	Copenhagen	Oct. 2, 1938
300 m.	3 m. 42.5 s.	25 m.	R. Hveger	Denmark	Copenhagen	Sept. 15, 1940
400 m.	5 m. 0.1 s.	25 m.	R. Hveger	Denmark	Copenhagen	Sept. 15, 1940
440 yd.	5 m. 7.9 s.	25 yd.	Ann Curtis	U. S.	Seattle, Wash.	May 2, 1947
500 yd.	5 m. 53 s.	25 m.	R. Hveger	Denmark	Copenhagen	Apr. 19, 1942
500 m.	6 m. 27.4 s.	25 m.	R. Hveger	Denmark	Copenhagen	Feb. 11 1940
800 m.	10 m. 52.5 s.	50 m.*	R. Hveger	Denmark	Copenhagen	Aug. 13, 1941
880 yd.	11 m. 8.6 s.	50 yd.*	Ann Curtis	U. S.	San Francisco	July 30, 1944
1,000 yd.	12 m. 36 s.	50 m.*	R. Hveger	Denmark	Helsingoer, Den.	Sept. 4, 1938
1,000 m.	13 m. 54.4 s.	50 m.*	R. Hveger	Denmark	Copenhagen	Aug. 20, 1941
1,500 m.	20 m. 57 s.	50 m.*	R. Hveger	Denmark	Copenhagen	Aug. 20, 1941
1 mi.	23 m. 11.5 s.	50 m.*	R. Hveger	Denmark	Helsingoer	July 3, 1938

Relays

400-yd.	4 m. 5.7 s.	25 yd.*	National Team (F. Nathansen, K. O. Petersen, B. O. Petersen, K. M. Harup)	Denmark	Copenhagen	Apr. 11, 1943
400-m.	4 m. 27.6 s.	25 m.	National Team (E. Arndt, G. Kraft, B. O. Petersen, R. Hveger)	Denmark	Copenhagen	Aug. 7, 1938

* Salt water.

BREAST STROKE

100 yd.	1 m. 9.2 s.	25 yd.	N. van Vliet	Netherlands	Hilversum	May 4, 1947
100 m.	1 m. 16.9 s.	25 m.	E. Szemely	Hungary	Moscow	May 9, 1951
200 yd.	2 m. 34 s.	25 yd.	E. Novak	Hungary	Ozd, Hungary	Dec. 30, 1950
200 m.	2 m. 48.5 s.	25 m.	E. Novak	Hungary	Moscow	May 5, 1951

BACKSTROKE

100 yd.	1 m. 4.6 s.	25 m.	G. Wielema	Netherlands	Hilversum	Mar. 13, 1950
100 m.	1 m. 10.9 s.	25 m.	Cor Kint	Netherlands	Rotterdam	Sept. 22, 1939
150 yd.	1 m. 40.4 s.	25 yd.	C. Wielema	Netherlands	Hilversum	Apr. 15, 1951
200 m.	2 m. 35.3 s.	25 m.	G. Wielema	Netherlands	Hilversum	Apr. 2, 1950

MEDLEY RELAY

(Back, breast, free style)

300 yd.	3 m. 19.4 s.	Rotterdamsese Dames Zwemclub (R. van Der Horst, N. Carritson, I. Schumacher)	Netherlands	Wallasoy	June 9, 1951
300 m.	3 m. 35.9 s.	National Team (C. Wielema, N. Carritson, I. Schumacher)	Netherlands	Rotterdam	Dec. 2, 1950

Miss Chadwick Again Swims Channel

On Sept. 11, 1951, Florence Chadwick of San Diego, Calif., became the first woman ever to swim the English Channel from Britain to France. This feat also made her the first woman ever to negotiate the treacherous crossing both ways. In 1950 she went from Cape Gris Nez, France, to Dover, England, in 13 hours 20 minutes, record time for a woman. The mark was lowered to 12 hours 40 minutes by Brenda Fisher of England in 1951.

It was estimated that Miss Chadwick covered 35 miles in her 1951 success. The distance from Dover to Cape Gris Nez is about 21 miles, as the crow flies. She started from St. Margaret's Bay near Dover and 16 hours 22 minutes later she crawled ashore at Sangatte, which is between Calais and Cape Gris Nez. Her time was 51 minutes over the Britain-to-France record, set by Tom Blower of England in 1950.

PAN-AMERICAN CHAMPIONSHIPS, 1951

(At Buenos Aires, Argentina, Feb. 25–March 8)

100-m. free—Richard Cleveland, United States	0:58.8
400-m. free—Tetsuo Okamoto, Brazil	4:52.4
1,500-m. free—Tetsuo Okamoto	19:23.3
100-m. back—Allen Stack, United States	1:08
200-m. breast—Hector Dominguez Nimo, Argentina	2:43.8
300-m. medley relay—United States (Richard Gora, Burwell Jones, Cleveland, William Heusner)	9:00.6
3-m. dive—Joaquin Capilla Perez, Mexico	201.716 pts.
High board dive—Joaquin Capilla Perez	159.966 pts.

A. A. U. LONG-DISTANCE CHAMPIONS

(At Terre Haute, Ind., Aug. 5)

Individual (4 miles)—Robert Arwezon, Providence (R. I.) Boys Club	1:39:39.9
Team—Providence Boys Club	10 pts.

WOMEN

(At Clementon, N. J., Aug. 18)

Individual (3 miles)—Ann Moss, Lafayette (Ind.) Sw'm Club	1:16:06.0
Team—Kenosha (Wis.) Youth Foundation	8pts.

NATIONAL A. A. U. SWIMMING CHAMPIONSHIPS, 1951

Men's Outdoor

(At Detroit, July 26–28)

100-m. free—Richard Cleveland, Hawaii	0:58
200-m. free—Wayne Moore, New Haven S. C.	2:08.4
400-m. free—Wayne Moore	4:35.8
800-m. free—Ford Konno, Hawaii	9:39.9
1,500-m. free—Ford Konno	18:46.3
100-m. back—James Thomas, Chapel Hill, N. C.	1:07.4
100-m. breast—John Davies, U. of Michigan	1:08.4
200-m. breast—John Davies	2:35.8
300-m. medley—Burwell Jones, Detroit	3:52.2
300-m. medley relay—Ohio State* (Jack Taylor, Gerald Holan, William Sonner)	3:17.4
800-m. relay—New Haven S. C. "A" (Don Sheff, Jimmy McLane, John Marshall, Moore)	8:51
3-m. dive—Robert Clotworthy, Ohio State U.	197.35 pts.
Platform dive—John McCormack, Pasadena A. C.	160.26 pts.
Team—New Haven (Conn.) Swim Club	84½ pts.

* Michigan won in 3:16.8, but was disqualified for using an ineligible swimmer.

Men's Indoor

(At Columbus, Ohio, April 5–7)

100-yd. free—Richard Cleveland, Hawaii	0:50
220-yd. free—John Marshall, New Haven S. C.	2:06.7
440-yd. free—John Marshall	4:32
1,500-meter free—John Marshall	18:10.8
100-yd. back—Jack Taylor, Ohio State	0:58.5
150-yd. back—Jack Taylor	1:32.5
100-yd. breast—Charles Moss, Ann Arbor, Mich.	0:59.3
220-yd. breast—John Davies, U. of Michigan	2:34.7
300-yd. medley—James Thomas, North Carolina	3:24.2
300-yd. medley relay—New Haven S. C. (Allen Stack, Dennis O'Connor, Don Sheff)	2:50
400-yd. relay—New Haven S. C. (Dick Thoman, Sheff, Bill Farnsworth, Ray Reid)	3:23
1-meter dive—David Browning, Texas	141.90 pts.
3-meter dive—David Browning	143.30 pts.
Team—New Haven Swim Club	142 pts.

Women's Outdoor

(At Detroit, July 26–29)

100-m. free—Sharon Geary, Los Angeles	1:07.6
400-m. free—Barbara Hobelmann, Washington, D. C.	5:21.6
800-m. free—Carolyn Green, Ft. Lauderdale, Fla.	11:15.5
1,500-m. free—Carolyn Green	21:48.3
100-m. back—Mary Freeman, Washington, D. C.	1:13.3
200-m. back—Mary Freeman	2:43.8
100-m. breast—Judy Cornell, Portland, Ore.	1:21
200-m. breast—Carol Pence, Lafayette, Ind.	3:00.2
300-m. medley—Evelyn Kawamoto, Hawaii	4:33
300-m. medley relay—Lafayette S. C. (Carol Pence, Sheila Donahue, Betty Mullen)	3:52.4
800-m. relay—Lafayette S. C. "A" (Ann Moss, Betty Mullen, Betty Jane Lynch, Sheila Donahue)	10:35.9
1-m. dive—Mrs. Pat McCormick, Los Angeles	160.83 pts.
3-m. dive—Mrs. Pat McCormick	169.12 pts.
Platform dive—Mrs. Pat McCormick	74.12 pts.
Team—Lafayette (Ind.) Swim Club	53 pts.

Women's Indoor

(At Houston, Texas, April 13–15)

100-yd. free—Jackie Lavine, Chicago	1:00.5
220-yd. free—Sharon Geary, Los Angeles	2:15.9
400-yd. free—Ann Moss, Lafayette, Ind.	4:52.3
100-yd. back—Maureen O'Brien, Chicago	1:03.4
200-yd. back—Mary Freeman, Washington, D. C.	2:32.1
100-yd. breast—Carol Pence, Lafayette, Ind.	1:12.5
200-yd. breast—Carol Pence	2:45
300-yd. medley—Mary Freeman	4:05.3
300-yd. medley relay—Town Club, Chicago (Maureen O'Brien, Marge Hulton, Jackie Lavine)	3:21
400-yd. relay—Lafayette Swim Club (Sheila Donahue, Anna Hayes, Ann Moss, Betty Mullen)	4:03.7
1-meter dive—Mrs. Pat McCormick, Los Angeles	137.76 pts.
3-meter dive—Mrs. Pat McCormick	149.76 pts.
Team—Lafayette Swim Club	54 pts.

SOFTBALL

Source: Amateur Softball Association

World Amateur Champions

MEN

1933—J. L. Gillis, Chicago, Ill.
1934—Ke-Nash-A's, Kenosha, Wis.
1935—Crimson Coaches, Toledo, Ohio
1936—Kodak Park, Rochester, N. Y.
1937—Briggs Mfg. Co., Detroit, Mich.
1938—Pohlers, Cincinnati, Ohio
1939—Carr's, Covington, Ky.
1940—Kodak Park, Rochester, N. Y.
1941—Bendix Brakes, South Bend, Ind.
1942—Deep Rock Oilers, Tulsa, Okla.
1943—Hammer Field, Fresno, Calif.
1944—Hammer Field, Fresno, Calif.
1945—Zollners, Fort Wayne, Ind.
1946—Zollners, Fort Wayne, Ind.
1947—Zollners, Fort Wayne, Ind.
1948—Briggs Beautyware, Detroit, Mich.
1949—Tip Top Tailors, Toronto, Ontario
1950—Clearwater (Fla.) Bombers
1951—Dow Chemical Co., Midland, Mich.

WOMEN

1933—Great Northerns, Chicago, Ill.
1934—Hart Motors, Chicago, Ill.
1935—Bloomer Girls, Cleveland, Ohio
1936—National Mfg. Co., Cleveland, Ohio
1937—National Mfg. Co., Cleveland, Ohio
1938—J. J. Kreig's, Alameda, Calif.
1939—J. J. Kreig's, Alameda, Calif.
1940—Arizona Ramblers, Phoenix
1941—Higgins Midgets, Tulsa, Okla.
1942—Jax Maids, New Orleans, La.
1943—Jax Maids, New Orleans, La.
1944—Lind & Pomeroy, Portland, Ore.
1945—Jax Maids, New Orleans, La.
1946—Jax Maids, New Orleans, La.
1947—Jax Maids, New Orleans, La.
1948—Arizona Ramblers, Phoenix
1949—Arizona Ramblers, Phoenix
1950—Orange (Calif.) Lionettes
1951—Orange (Calif.) Lionettes

BADMINTON

Source: John E. Garrod, American Badminton Association.

United States Champions

Year	Men's Singles	Men's Doubles
1937	Walter R. Kramer, Detroit, Mich.	Chester Goss—Donald Eversoll, Los Angeles, Calif.
1938	Walter R. Kramer, Detroit, Mich.	Hamilton Law—Richard Yeager, Seattle, Wash.
1939	David G. Freeman, Pasadena, Calif.	Hamilton Law—Richard Yeager, Seattle, Wash.
1940	David G. Freeman, Pasadena, Calif.	Chester Goss—David G. Freeman, Pasadena, Calif.
1941	David G. Freeman, Pasadena, Calif.	Chester Goss—David G. Freeman, Pasadena, Calif.
1942	David G. Freeman, Pasadena, Calif.	Chester Goss—David G. Freeman, Pasadena, Calif.
1947	David G. Freeman, Pasadena, Calif.	D. G. Freeman—Webster Kimball, Pasadena, Calif.
1948	David G. Freeman, Pasadena, Calif.	Wynn Rogers, Arcadia, Calif.—D. G. Freeman.
1949	Martin Mendez, San Diego, Calif.	Barney McCay, Pasadena—Wynn Rogers, Arcadia.
1950	Martin Mendez, San Diego, Calif.	Barney McCay, Pasadena—Wynn Rogers, Arcadia.
1951	Joseph Alston, San Diego, Calif.	Wynn Rogers, Arcadia—Joseph Alston

Year	Women's Singles	Women's Doubles
1937	Mrs. Del Barkhuff, Seattle, Wash.	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
1938	Mrs. Del Barkhuff, Seattle, Wash.	Mrs. Roy C. Bergman—Helen Gibson, Westport, Conn.
1939	Mary E. Whittemore, Boston, Mass.	Mrs. Del Barkhuff—Zoe G. Smith, Seattle, Wash.
1940	Evelyn Boldrick, San Diego, Calif.	Elizabeth Anselm—Helen Zabriskie, Oakland, Calif.
1941	Thelma Kingsbury, Oakland, Calif.	Thelma Kingsbury—Janet Wright, Oakland, Calif.
1942	Evelyn Boldrick, San Diego, Calif.	Evelyn Boldrick, San Diego—Janet Wright, Oakland, Calif.
1947	Ethel Marshall, Buffalo, N. Y.	Thelma K. Scovil—Janet Wright, San Francisco.
1948	Ethel Marshall, Buffalo, N. Y.	Thelma K. Scovil—Janet Wright, San Francisco.
1949	Ethel Marshall, Buffalo, N. Y.	Thelma K. Scovil—Janet Wright, San Francisco.
1950	Ethel Marshall, Buffalo, N. Y.	Thelma K. Scovil—Janet Wright, San Francisco.
1951	Ethel Marshall, Buffalo, N. Y.	Dottie Hann, Manhattan Beach, Calif.—Mrs. L. M. Smith

Mixed Doubles

1937—Mrs. Del Barkhuff—Hamilton Law, Seattle.
1938—Mrs. Del Barkhuff—Hamilton Law.
1939—Zoe G. Smith—Richard Yeager, Seattle.
1940—Sally L. Williams, Spokane, Wash.—David G. Freeman, Pasadena.
1941—Sally L. Williams—David G. Freeman.
1942—Sally L. Williams—David G. Freeman.
1947—Wynn Rogers—Mrs. Virginia Hill, Pasadena.
1948—Mr. and Mrs. Clinton Stephens, Baltimore.
1949—Wynn Rogers, Arcadia, Calif.—Mrs. Huelet Smith, Los Angeles.
1950—Wynn Rogers—Mrs. Huelet Smith.
1951—Mrs. Loma Moulton Smith, Pasadena—Wynn Rogers

OTHER BADMINTON CHAMPIONS, 1951

All-England

Singles—Wong Peng Soon, Malaya
Women's Singles—Aase Jacobsen, Denmark
Doubles—Eddie and David Choong, Malaya
Women's doubles—Fru. Tonny Ahm-Kirsten Thorndahl, Denmark
Mixed doubles—Poul Holm-Tonny Ahm, Denmark

United States

Veterans' doubles—Fred Fullin, Westport, Conn.-Howard Holman, Fresno, Calif.
Boys' singles—Steve Hinchliffe, Hermosa Beach, Calif.
Girls' singles—Judy Devlin, Baltimore
Boys' doubles—Jack Chrisman, Jr., Burbank, Calif.-Dean Maurry, Manhattan Beach, Calif.
Girls' doubles—Deedy McCormick, Westport, Conn.-Judy Devlin
Mixed doubles—Jean Gibbs, Pasadena-Steve Hinchliffe

GYMNASTICS, 1951

National A. A. U. Championships

(At Detroit, May 4-5)

	Points
All-around—Bill Roetzheim, Florida State U.	332.9
Calisthenics—Ara Hairabedian, Univ. of So. Calif.	56.0
Flying Rings—John Miles, Florida State U.	56.8
Horizontal bar—H. S. Lewis, U. S. Naval Academy	56.7
Indian clubs—Edward Hennig, Cleveland Y.M.C.A.	28.6
Long Horse—Edward Scrobe, American Turners, New York	57.2
Parallel bars—Joseph Kotys, Kent State (Ohio)	57.5
Rope climb—Sanford Werner, Los Angeles State	3.1s.
Side horse—Bill Roetzheim	57.1
Tumbling—Dick Browning, unattached	28.5
Team—Florida State University	53

WOMEN

	Points
All-around—Clara M. Schroth, Phila. Turners	289.5
Balance beam—Clara M. Schroth	58.9
Calisthenics—Clara M. Schroth	58.6
Flying rings—Clara M. Schroth	57.0
Indian clubs—Roberta Bonniwell, Phila. Turners	28.7
Parallel bars—Marian T. Barone, Phila. Turners	58.8
Side horse—Marian T. Barone	58.7
Tumbling—Joanne Slocum, Dallas A. C.	28.4
Team drill—Lincoln Turners	182

(For National Collegiate A. A. and Eastern Intercollegiate League champions see index.)

WATER POLO, 1951

National A. A. U. Champions

Senior outdoor—Illinois A. C., Chicago
Senior indoor—Illinois A. C.

FENCING

Source: Amateur Fencers League of America.

NATIONAL CHAMPIONS

Year	Foil	Épée	Saber	Women's foil
1892	W. S. O'Connor	B. F. O'Connor	R. O. Haubold	
1893	W. T. Heintz	G. M. Hammond	G. M. Hammond	
1894	C. G. Bothner	R. O. Haubold	G. M. Hammond	
1895	A. V. Z. Post	C. G. Bothner	C. G. Bothner	
1896	G. Kavanaugh	A. V. Z. Post	C. G. Bothner	
1897	C. G. Bothner	C. G. Bothner	C. G. Bothner	
1898	No competition			
1899	G. Kavanaugh	M. Diaz	G. Kavanaugh	
1900	F. Townsend	W. D. Lyon	J. L. Erving	
1901	C. Tatham	C. Tatham	A. V. Z. Post	
1902	J. P. Parker	C. Tatham	A. V. Z. Post	
1903	F. Townsend	C. Tatham	A. V. Z. Post	
1904	C. G. Bothner	C. G. Bothner	A. G Anderson	
1905	C. G. Bothner	W. S. O'Connor	K. B. Johnson	
1906	S. D. Breckinridge	W. Grebe	A. G. Anderson	
1907	C. Waldbott	W. D. Lyon	A. G. Anderson	
1908	W. L. Bowman	P. Benzenberg	G. W. Postgate	
1909	O A. Dickinson	A. De La Poer	A. E. Sauer	
1910	G. K. Bainbridge	A. De La Poer	J. T. Shaw	
1911	G. H. Breed	G. H. Breed	A. G. Anderson	
1912	S. Hall	A. V. Z. Post	C. A. Bill	A. Baylis
1913	P. J. Meylan	A. E. Sauer	A. G. Anderson	Mrs. W. H. Dewar
1914	S D. Breckinridge	F. W. Allen	W. Von Blijenburgh	M. Stimson
1915	O. A. Dickinson	J. A. MacLaughlin	S. Hall	J. Pyle
1916	A. E. Sauer	W. H. Russell	S. Hall	Mrs. C. H. Woorhees
1917	S. Hall	L. G. Nunes	A. S. Lyon	F. Walton
1918	No competition			
1919	S. Hall	W. H. Russell	A. S. Lyon	No competition
1920	S. Hall	R. W. Dutcher	S. Hall	A. Gehrig
1921	F. W. Honeycutt	C. R. McPherson	C. R. McPherson	A. Gehrig
1922	H. M. Raynor	L. G. Nunes	L. G. Nunes	A. Gehrig
1923	R. Peroy	G. C. Calnan	L. M. Schoonmaker	A. Gehrig
1924	L. G. Nunes	L. G. Nunes	J. E. Gignoux	Mrs. C. H. Hopper
1925	G. C. Calnan	W. H. Russell	J. Vince	Mrs. L. M. Schoonmaker
1926	G. C. Calnan	L. G. Nunes	L. G. Nunes	Mrs. L. M. Schoonmaker
1927	G. C. Calnan	H. Van Buskirk	N. Muray	S. Stern
1928	G. C. Calnan	L. G. Nunes	N. Muray	M. Lloyd
1929	J. L. Levis	F. S. Righeimer	L. G. Nunes	Mrs. L. M. Schoonmaker
1930	G. C. Calnan	M. Pasche	N. C. Armitage	Mrs. H. Van Buskirk
1931	G. C. Calnan	M. A. de Capriles	J. R. Huffman	M. Lloyd
1932	J. L. Levis	L. G. Nunes	J. R. Huffman	D. Locke
1933	J. L. Levis	G. M. Heiss	J. R. Huffman	D. Locke
1934	H. V. Alessandroni	G. M. Heiss	N. C. Armitage	H. Mayer
1935	J. L. Levis	T. J. Sands	N. C. Armitage	H. Mayer
1936	H. V. Alessandroni	G. M. Heiss	N. C Armitage	Mrs. J. de Tuscan
1937	J. L. Levis	T. J. Sands	J. R. Huffman	H. Mayer
1938	D. Every	J. R. de Capriles	J. R. Huffman	H. Mayer
1939	N. Lewis	L. Tingley	N. C. Armitage	H. Mayer
1940	D. Every	F. Seibert	N. C. Armitage	H. Mroczkowska
1941	D. Cetrulo	G. M. Heiss	N. C. Armitage	H. Mayer
1942	W. Dow	H. Santos	N. C. Armitage	H. Mayer
1943	W. Dow	R. Driscoll	N. C. Armitage	H. Mroczkowska
1944	A. Snyder	M. A. de Capriles	T. Nyilas	M. Dalton
1945	D. Every	M. Gilman	N. C. Armitage	M. Cerra
1946	J. R. de Capriles	A. Wolff	T. Nyilas	H. Mayer
1947	Dean Cetrulo	James Strauch	James Flynn	Mrs. Helena Dow
1948	Nathaniel Lubell	Norman Lewis	Dean Cetrulo	Mrs. Helena Dow
1949	Daniel Bukantz	Norman Lewis	Umberto Martino	Polly Craus
1950	Silvio Giolito	Norman Lewis	Tibor Nyilas	Janice Lee York
1951	Silvio Giolito	Jose de Capriles	Tibor Nyilas	Janice Lee York

WORLD FENCING CHAMPIONS, 1951

Individual

Foil—Manlio di Rosa, Italy
Epee—Eduardo Mangiarotti, Italy
Saber—Aladar Gerevich, Hungary
Women's foil—Ilona Elek, Hungary

Team

Foil—France
Epee—France
Saber—Hungary
Women's foil—France

SOCCER

Source: Flannery News Bureau of New York.

National Challenge Cup Winners

Emblematic of United States Championship.

(Senior amateur and professional elevens eligible for tournaments.)

1914 Brooklyn (N. Y.) Field Club
1915 Bethlehem (Pa.) Steel Co. F. C.
1916 Bethlehem (Pa.) Steel Co. F. C.
1917 Fall River (Mass.) Rovers
1918 Bethlehem (Pa.) Steel Co. F. C.
1919 Bethlehem (Pa.) Steel Co. F. C.
1920 Ben Miller F. C., St. Louis, Mo.
1921 Robins Dry Dock F. C., Brooklyn, N. Y.
1922 Scullin Steel F. C., St. Louis, Mo.
1923 Paterson (N. J.) F. C.
1924 Fall River (Mass.) F. C.
1925 Shawsheen S. C., Andover, Mass.
1926 Bethlehem (Pa.) Steel Co. F. C.
1927 Fall River (Mass.) F. C.
1928 New York Nationals S. C.
1929 Hakoah All-Stars, New York
1930 Fall River (Mass.) F. C.
1931 Fall River (Mass.) F. C.
1932 New Bedford (Mass.) F. C.
1933 Stix, Baer & Fuller F. C., St. Louis, Mo.
1934 Stix, Baer & Fuller F. C., St. Louis, Mo.
1935 Central Breweries S. C., St. Louis, Mo.
1936 First German American S. C., Philadelphia
1937 New York Americans S. C.
1938 Sparta A. B. A., Chicago, Ill.
1939 St. Mary's Celtic S. C., New York
1940 No official champion*
1941 Pawtucket (R. I.) F. C.
1942 Gallatin S. C., Pittsburgh
1943 Brooklyn (N. Y.) Hispano S. C.
1944 Brooklyn (N. Y.) Hispano S. C.
1945 Brookhattan S. C., New York
1946 Vikings, Chicago
1947 Ponta Delgada F. C., Fall River, Mass.
1948 Joe Simpkins S. C., St. Louis, Mo.
1949 Morgan (Pa.) S. C.
1950 Joe Simpkins S. C., St. Louis, Mo.
1951 German-Hungarian S. C., New York

*** Finalists: Baltimore (Md.) S. C. and Sparta A. B. A., Chicago, Ill.**

U. S. TEAM FENCING CHAMPIONS, 1951

3-weapon—New York Athletic Club (Dernell Every, foil; Henrique Santos, epee; Dr. James Flynn, saber)
Foil—Fencers Club, New York (Dr. Daniel Bukantz, Dr. Leo Kellerman, Nathaniel Lubell, Edward Vebell)
Epee—Fencers Club (Jose de Capriles, Alfred Skrobisch, James Strauch, Edward Vebell)
Saber—New York A. C. (Dr. James Flynn, Ralph Marson, Nickolas Muray)
Women's foil—Faulkner School, Los Angeles (Polly Craus, Susan Maguire, Bernadine Meislahn)

ROLLER DERBY

1951 World Series

(At Madison Square Garden, New York)

FINAL ROUND-ROBIN STANDING

	W.	L.
New York Chiefs	4	0
Chicago Westerners	3	1
Jersey Jolters	2	2
Washington Jets	1	3
Brooklyn Red Devils	0	4

National Amateur Challenge Cup Winners

1923 No official champion*
1924 Fleisher Yarn F. C., Philadelphia
1925 Toledo (Ohio) F. C.
1926 Defenders F. C., New Bedford, Mass.
1927 Heidelberg (Pa.) F. C.
1928 No official champion†
1929 Heidelberg (Pa.) F. C.
1930 Raffies F. C., Fall River, Mass.
1931 Goodyear F. C., Akron, Ohio
1932 Shamrock S. C., Cleveland, Ohio
1933 German American S. C., Philadelphia
1934 German American S. C., Philadelphia
1935 W. W. Riehl S. C., Castle Shannon, Pa.
1936 First German S. C., Brooklyn, N. Y.
1937 Highlander F. C., Trenton, N. J.
1938 Ponta Delgada F. C., Fall River, Mass.
1939 St. Michael's A. C., Fall River, Mass.
1940 Morgan-Strasser S. C., Morgan, Pa.
1941 Fall River (Mass.) S. C.
1942 Fall River (Mass.) S. C.
1943 Morgan-Strasser S. C., Morgan, Pa.
1944 Eintracht S. C., New York
1945 Eintracht S. C., New York
1946 Ponta Delgada F. C., Fall River, Mass.
1947 Ponta Delgada F. C., Fall River, Mass.
1948 Ponta Delgada F. C., Fall River, Mass.
1949 Elizabeth (N. J.) Sport Club
1950 Ponta Delgada F. C., Fall River, Mass.
1951 German-Hungarian S. C., New York

*** Medals to semifinalists: Fleisher Yarn F. C., Philadelphia; Roxbury (Mass.) F. C.; Jeannette (Pa.) F. C.; Swedish American A. A., Chicago, Ill. † Finalists: Powers-Hudson-Essex F. C., Fall River, Mass.; and Swedish American A. C., Detroit, Mich.**

BRITISH SOCCER CHAMPIONS, 1951

Source: Jim Kelly, 2889 Bainbridge Ave., New York 58, N. Y.

International—Scotland

English

League (Division I)—Tottenham Hotspur
League (Division II)—Preston North End
League (Division III, South)—Notts Forest
League (Division III, North)—Rotherham
Cup—Newcastle United

Scottish

League (Division "A")—Hibernians
League (Division "B")—Stirling Albion
Cup—Glasgow Celtic

Welsh

League (Division I, South)—Swansea Town
League (Division I, North)—Pwllheli & District
Cup—Merthyr Tydfil

Irish

League—Glentoran Cup—Glentoran

IRISH CHAMPIONS, 1951

Gaelic football—Mayo
Hurling—Tipperary

ICE (FIGURE) SKATING

Source: Art Goodfellow, Editor, *National Ice Skating Guide*, 110 East 42d St., New York 17. N. Y.

WORLD CHAMPIONS

Year	Men	Women
1896	Gilbert Fuchs, Germany	.....
1897	Gustav Hugel, Austria	.....
1898	H. Grenander, Sweden	.....
1899	Gustav Hugel, Austria	.....
1900	Gustav Hugel, Austria	.....
1901	Ulrich Salchow, Sweden	.....
1902	Ulrich Salchow, Sweden	.....
1903	Ulrich Salchow, Sweden	.....
1904	Ulrich Salchow, Sweden	.....
1905	Ulrich Salchow, Sweden	.....
1906	Gilbert Fuchs, Germany	Madge Syers, England
1907	Ulrich Salchow, Sweden	Madge Syers, England
1908	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1909	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1910	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1911	Ulrich Salchow, Sweden	Lily Kronberger, Hungary
1912	Fritz Kachler, Austria	Meray Horvath, Hungary
1913	Fritz Kachler, Austria	Meray Horvath, Hungary
1914	Gosta Sandahl, Sweden	Meray Horvath, Hungary
1915–21	No competition	No competition
1922	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1923	Fritz Kachler, Austria	Mrs. Szabo Plank, Austria
1924	Gillis Grafstrom, Sweden	Mrs. Szabo Plank, Austria
1925	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1926	Willi Boeckl, Austria	Mrs. Szabo Plank, Austria
1927	Willi Boeckl, Austria	Sonja Henie, Norway
1928	Willi Boeckl, Austria	Sonja Henie, Norway
1929	Gillis Grafstrom, Sweden	Sonja Henie, Norway
1930	Karl Schafer, Austria	Sonja Henie, Norway
1931	Karl Schafer, Austria	Sonja Henie, Norway
1932	Karl Schafer, Austria	Sonja Henie, Norway
1933	Karl Schafer, Austria	Sonja Henie, Norway
1934	Karl Schafer, Austria	Sonja Henie, Norway
1935	Karl Schafer, Austria	Sonja Henie, Norway
1936	Karl Schafer, Austria	Sonja Henie, Norway
1937	Felix Kaspar, Austria	Cecilia Colledge, England
1938	Felix Kaspar, Austria	Megan Taylor, England
1939	Graham Sharp, England	Megan Taylor, England
1940–46	No competition	No competition
1947	Hans Gerschweiler, Switzerland	Barbara A. Scott, Canada
1948	Richard Button, U. S.	Barbara A. Scott, Canada
1949	Richard Button, United States	Aja Vrzanova, Czechoslovakia
1950	Richard Button, U. S.	Aja Vrzanova, Czech.
1951	Richard Button, United States	Jeannette Altwegg, England

OTHER CHAMPIONS, 1951

World

Pairs—Ria Baran-Paul Falk, Western Germany
Dance—Jean Westwood-Lawrence Demmy, England

European

Men—Hellmut Seibt, Austria
Women—Jeannette Altwegg, England
Pairs—Rra Baran-Paul Falk

Canadian

Men—Peter Firstbrook, Toronto
Women—Suzanne Morrow, Toronto
Pairs—Jane Kirby-Donald Tobin, Ottawa
Men's junior—Peter Dunfield, Toronto
Women's junior—Elizabeth Gratton, Toronto

UNITED STATES CHAMPIONS

Year	Men	Women
1914	Norman Scott	Theresa Weld
1915–17	No competition	No competition
1918	Nathaniel Niles	Mrs R. S. Beresford
1919	No competition	No competition
1920	Sherwin Badger	Theresa Weld
1921	Sherwin Badger	Theresa Blanchard
1922	Sherwin Badger	Theresa Blanchard
1923	Sherwin Badger	Theresa Blanchard
1924	Sherwin Badger	Theresa Blanchard
1925	Nathaniel Niles	Beatrix Loughran
1926	C. I. Christenson	Beatrix Loughran
1927	Nathaniel Niles	Beatrix Loughran
1928	Roger Turner	Maribel Y. Vinson
1929	Roger Turner	Maribel Y. Vinson
1930	Roger Turner	Maribel Y. Vinson
1931	Roger Turner	Maribel Y. Vinson
1932	Roger Turner	Maribel Y. Vinson
1933	Roger Turner	Maribel Y. Vinson
1934	Roger Turner	Suzanne Davis
1935	Robin Lee	Maribel Y. Vinson
1936	Robin Lee	Maribel Y. Vinson
1937	Robin Lee	Maribel Y. Vinson
1938	Robin Lee	Joan Tozzer
1939	Robin Lee	Joan Tozzer
1940	Eugene Turner	Joan Tozzer
1941	Eugene Turner	Jane Vaughn
1942	Bobby Specht	Jane V. Sullivan
1943	Arthur R. Vaughn, Jr.	Gretchen Merrill
1944	Omitted	Gretchen Merrill
1945	Omitted	Gretchen Merrill
1946	Richard Button	Gretchen Merrill
1947	Richard Button	Gretchen Merrill
1948	Richard Button	Gretchen Merrill
1949	Richard Button	Yvonne Sherman
1950	Richard Button	Yvonne Sherman
1951	Richard Button	Sonja Klopfer

OTHER U. S. CHAMPIONS, 1951

Pairs—Karol and Peter Kennedy, Colorado Springs, Colo.
Gold dance—Carmel and Edward Bodel, Berkeley, Calif.
Silver dance—Caryl Johns-Jack Jost, Baltimore

JUNIOR

Men—Dudley S. Richards, Boston
Women—Frances Dorsey, Seattle
Pairs—Caryl Johns-Jack Jost

NOVICE

Men—Noel T. Ledin, Chicago
Women—Carol E. Heiss, New York

North American

Men—Richard Button, Englewood, N. J.
Women—Sonja Klopfer, Brooklyn
Pairs—Karol and Peter Kennedy, Colorado Springs, Colo.
Dance—Mr.-Mrs. Edward Bodel, Berkeley, Calif.

Gardner Sets 16 Records

Lieut. Col. A. T. Gardner, a 60-year-old Englishman, drove a Magic Midget to sixteen Class F American and international auto-racing records at Bonneville, Utah, on Aug. 20. Gardner went 139.3 miles per hour in a one-hour run from a flying start, more than doubling the old record of 66.04.

ICE (SPEED) SKATING

WORLD RECORDS

Source: International Skating Union (I.S.U.).

MEN

Meters	Time	Recordholder and country	Where made	Date
500	0:41.8	Hans Engnestangen, Norway	Davos, Switz.	Feb. 5, 1938
1,000	1:28.4	Clas Thunberg, Finland	Davos, Switz.	Jan. 11, 1930
1,500	2:13.8	Hans Engnestangen, Norway	Davos, Switz.	Jan. 29 1930
3,000	4:45.7	Ake Seyffarth, Sweden	Davos, Switz.	Feb. 3, 1942
5,000	8:07.3	Hjalmar Andersen, Norway	Trondheim, Norway	Jan. 13, 1951
10,000	16:57.4	Hjalmar Andersen, Norway	Davos, Switz.	Feb. 6, 1949

WOMEN

500	0:46.4	Laila Schou-Nilsen, Norway	Davos, Switz.	Jan. 30, 1937
1,000	1:36.8	Sofja Kondakowa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 5, 1951
1,500	2:29.5	Marija Issakowa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 12, 1951
3,000	5:22.2	Olga Akifjewa, U.S.S.R.	Medeo, U.S.S.R.	Feb. 16, 1951
5,000	9:10.7	Tatjana Karelina, U.S.S.R.	Medeo, U.S.S.R.	Feb. 12, 1951

NATIONAL SENIOR AMATEUR RECORDS

(Made in competition)

Source: Amateur Skating Union of the United States.

MEN'S OUTDOOR

Event	Time	Holder	Place	Date
220 yd.	18.1	Robert Fitzgerald	Minneapolis	1/10/43
440 yd.	35.4	Charles Gorman	Lake Placid	2/14/27
	35.4	Ken Bartholomew	St. Paul	1/25/42
	35.4	Robert Fitzgerald	Minneapolis	2/15/42
880 yd.	1:14.2	Robert Fitzgerald	Minneapolis	1/7/45
¾ mi.	1:55.8	Clas Thunberg	Saranac Lake	2/15/26
1 mi.	2:38.2	Clas Thunberg	Lake Placid	2/12/26
*1 mi.	2:29.7	Del Lamb	Oslo	2/19/48
2 mi.	5:33.8	Eddie Schroeder	Minneapolis	1/30/34
3 mi.	8:19.6	Ross Robinson	Lake Placid	2/14/30
5 mi.	14:30.4	Ross Robinson	Lake Placid	2/12/27

* Made on 400-meter track in Norway.

WOMEN'S OUTDOOR

220 yd.	20.2	Maddy Horn	Saranac Lake	2/11/39
440 yd.	39.4	L. Neitzel	Minneapolis	2/3/29
880 yd.	1:25.9	Maddy Horn	Escanaba*	1/13/40
¾ mi.	2:17	Dot Franey	Minneapolis	1/16/37
1 mi.	3:06.1	Maddy Horn	Oconomowoc†	1/24/37

* Michigan. † Wisconsin.

MEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

Event	Time	Holder	Place	Date
220 yd.	18	F. Robson	Boston	1/13/11
1/6 mi.	23.8	C. Gorman	St. John*	3/1/27
440 yd.	36.8	C. Gorman	St. John	2/27/25
880 yd.	1:15.6	B. O'Sickey	Pittsburgh	3/1/16
¾ mi.	2:00.4	P. Johnston	Cleveland	3/2/23
1 mi.	2:41.2	Morris Wood–F. Robson	Pittsburgh	2/13/04
1½ mi.	4:25	Edmund Lamy	Cleveland	1/27/10
2 mi.	5:54.8	R. Heckenbach	St. Paul	1/30/37
3 mi.	8:58.8	P. Johnston	Pittsburgh	2/19/27
4 mi.	13:41.8	Joe Moore	Brooklyn	2/7/27
5 mi.	15:42.2	F. Stack	Chicago	2/3/30

FOR TRACKS 13 LAPS AND OVER

¾ mi.	2:05.2	E. Babayan	Colo. Springs	2/18/50
1 mi.	3:00.9	E. Babayan	Colo. Springs	2/18/50
2 mi.	6:20.8	A. Broadhurst	Colo. Springs	2/18/50

WOMEN'S INDOOR

FOR TRACKS 12 LAPS AND UNDER

220 yd.	21.6	Dot Franey	St. Paul	2/15/36
1/6 mi.	31.0	Dot Franey	St. Louis	2/25/33
440 yd.	41.6	Dot Franey	St. Paul	2/16/36
880 yd.	1:27	Leila B. Potter	Pittsburgh	3/6/26
¾ mi.	2:18.1	Kit Klein	Chicago	2/2/35
1 mi.	3:15.6	Maddy Horn	Chicago	4/1/38

FOR TRACKS 13 LAPS AND OVER

½ mi.	1:33.8	B. Marchetti	Colo. Springs	2/18/50
¾ mi.	2:26.7	B. Marchetti	Colo. Springs	2/18/50
1 mi.	3:23	B. Marchetti	Colo. Springs	2/18/50

* New Brunswick, Canada.

1951 CHAMPIONS

World—Men

(At Davos, Switzerland, Feb. 10–11)

All-around—Hjalmar Andersen, Norway	220.147 pts.
500 meters—Susumu Naito, Japan	0:43.0
1,500 meters—Wim van der Voort, Holland	2:17.7
5,000 meters—Hjalmar Andersen	8:27.9
10,000 meters—Hjalmar Andersen	19:31.8

World—Women

(At Eskilstuna, Sweden, Feb. 3–4)

All-around—Evi Huttunen, Finland	217.147 pts.
500 meters—Randi Thorvaldsen, Norway	0:49.4
1,000 meters—Evi Huttunen	1.42.5
3,000 meters—Evi Huttunen	5:39.1
5,000 meters—Evi Huttunen	9:45.8

1951 European Champions

(At Oslo, Norway, Jan. 27–28)

All-around—Hjalmar Andersen, Norway	194.057 pts.
500 meters—Hjalmar Andersen	0:44.5
1,500 meters—Wim van der Voort, Holland	2:22.5
5,000 meters—Hjalmar Andersen	8:15.6
10,000 meters—Hjalmar Andersen	17:28.6

1951 UNITED STATES OUTDOOR SPEED SKATING CHAMPIONS

(At St. Paul, Minn., Jan. 27–28)

SENIOR MEN

220 yd.—Scotty Wallace, Champaign-Urbana, Ill..... 0:19.7
440 yd.—Ken Henry, Chicago..... 0:37.3
880 yd.—Ken Henry..... 1:46.6
¼-mile—Don McDermott, Ferndale, N. Y..... 2:09.1
Mile—Al Broadhurst, Roslindale, Mass..... 3:18.1
2 miles—Ray Blum, Nutley, N. J..... 6:07.0
5 miles—Charles Burke, Chicago..... 16:15.0
Champion—Ken Bartholomew, Minneapolis..... 80 pts.

SENIOR WOMEN

220 yd.—Barbara Marchetti, Detroit..... 0:22.9
440 yd.—Donna Wang, St. Paul..... 0:43.3
880 yd.—Gwendolyn DuBois, Newburgh, N. Y..... 2:01.4
¼-mile—Barbara Marchetti..... 2:34.1
Mile—Gwendolyn DuBois..... 3:30.9
Champion—Barbara Marchetti and Gwendolyn DuBois (tie)..... 100 pts.

1952 U. S. OLYMPIC TEAM

Al Broadhurst, Roslindale, Mass.
Charles Burke, Champaign-Urbana, Ill.
Bobby Fitzgerald, Minneapolis
Ken Henry, Chicago
Don McDermott, Englewood, N. J.
Pat McNamara, Minneapolis
Gene Sandvig, Minneapolis
John Werket, Minneapolis

Canadian

Men—Frank Stack, Winnipeg, Manitoba
Women—Doreen McLeod, Edmonton, Alberta

Middle Atlantic

Men—Bobby Jahn, Bogota, N. J.
Women—Gwendolyn DuBois, Newburgh, N. Y.

Eastern States

Men—Bobby Jahn, Bogota, N. J.
Women—Mary Lynch, Newburgh, N. Y.

LAWN BOWLING, 1951

Source: W. G. "Bill" Hay, Honorary President, American Lawn Bowling Association.

National Champions

Singles—George Robbins, Thamesford (Ontario) L. B. C.
Doubles—Richard Auld (skip)–Thomas Stirrat, Hyde Park, L. B. C., Niagara Falls, N. Y.
Rinks—Fernleigh L. B. C., West Hartford, Conn. (Dr. Clinton Deming, skip; John McNeill, James Donaldson, David Kidd)

Divisional Champions

CENTRAL

Singles—David Hunter, East Side L. B. C., Detroit
Doubles—D. Hunter (skip)–D. Murray, East Side L. B. C.
Triples—East Side L. B. C. (James Cosgrove, skip; John Cosgrove, James Taylor)

NORTHWESTERN

Singles—A. J. Underhill, Queen City L. B. C., Seattle
Doubles—Wallace Kenmuir–Andrew Hunter, Vancouver, B. C.
Triples—Vancouver (A. Houston, J. Morrison, A. Morrison)

SOUTHWESTERN

Singles—J. Cobb, Lakeside L. B. C., Oakland, Calif.
Doubles—K. Landgraf, skip; J. Armstrong, Exposition Park L. B. C., Los Angeles
Triples—Oakland (Calif.) L. B. C. (R. Veitch, skip; A. Veitch, Jr., W. Jeffers)

The British Empire's team won the eighth annual international tuna tournament for the Alton B. Sharp Trophy at Wedgeport, Nova Scotia, last September. The final standing:

	Pts.
British Empire	2,039 1/2
United States	1,853
Scandinavia	1,821 1/3
Chile	1,370 2/3
Cuba	663 2/3

LACROSSE

Source: Craig E. Taylor, *The Baltimore Sun*

1951 National Champions

Open—Army and Princeton
Intercollegiate—Army and Princeton

1951 North-South Game

(At Troy, N. Y.)

NORTH (12)

Attack—Eustace (R. P. I.), Nuttle (Cornell), McWilliams (Williams), Podbielski (Syracuse), DeMuth (Hobart), Hahn (Princeton).
Midfield—Phares (R. P. I.), Rockefeller (Yale), Wilcox (Penn State), Hudner (Harvard), Fierty (Dartmouth), Ellis (Army), Meyer (Army), Gilbert (Princeton).
Defense—McGann (Army), Giordano (Army), Linville (Hobart), Carey (Princeton), Turci (R. P. I.).
Goal—Owen (Princeton), Treadwell (Yale).

SOUTH (11)

Attack—Wood (Washington), Swan (Delaware), McDonough (Navy), Hooper (Virginia), Forbush (Johns Hopkins), Boyce (Duke).
Midfield—Hall (Maryland), Walker (Maryland), Tucker (Johns Hopkins), Klausen (Duke), Kimmel (Loyola), Schwaab (Drexel), Leonard (Washington), Earl (Navy), Levering (Swarthmore).
Defense—Keller (Johns Hopkins), Hemming (Virginia), Kabernagle (Washington), Gilfillan (Duke).
Goal—Sollers (Johns Hopkins), Crawford (Virginia).

SCORE BY PERIODS

North	2	3	4	3	—12
South	2	6	1	2	—11

Scoring: North—Eustace 3, Podbielski 2, DeMuth 2, Hahn 2, Meyer 1, Gilbert 2. South—Wood 3, Forbush 3, Boyce 2, Hall 3.

North-South Game Record

1940—North 6, South 5
1941—South 7, North 6
1942—North 6, South 3
1943—South 9, North 5
1944–45—No games
1946—North 14, South 14
1947—North 15, South 3
1948—North 11, South 6
1949—South 11, North 6
1950—North 12, South 8
1951—North 12, South 11

Clark Pigeon-Shooting Champion

The 1951 international pigeon-shooting championship, held at Monte Carlo, Monaca, went to Homer Clark of Alton, Ill. Clark beat Luigi Ongari of Italy in a shoot-off, 31 to 30. Tony Banchero of Stockton, Calif., won the Grand Prix de Monaco and the United States annexed team honors.

WORLD ALL-TACKLE FISHING RECORDS

Caught with Rod and Reel in Salt Water

Source: International Game Fish Association, Francesca LaMonte, Secretary.

Species	Lb., oz.	Length	Girth	Where caught	Year	Angler
Albacore	66—4	....	....	Catalina, California	1912	Frank Kelly
Amberjack	106	68½"	37"	Pass-a-Grille, Florida	1937	Harvey M. Harker
Barracuda	103—4	66"	31¼"	West End, Bahamas	1932	C. E. Benet
Bass, Calif. White Sea	77—4	61"	33"	San Diego, Calif.	1950	H. P. Bledsoe
Bass, Channel	83	52"	29"	Cape Charles, Va.	1949	Zack Waters, Jr.
Bass, Giant Black Sea	483	87"	73"	Coronado Is., Calif.	1951	R. E. De Groff
Bass, Sea	8	22"	19"	Nantucket Sound, Mass.	1951	H. R. Rider
Bass, Giant Sea	551	100"	....	Galveston Bay, Texas	1937	G. Pangarakis
Bass, Striped	73	60"	30½"	Vineyard Sound, Mass.	1913	C. B. Church
Blackfish (Tautog)	13—2	26"	18"	Gardiners Bay, N. Y.	1950	L. E. Iandoli
Bluefish	20	42"	19½"	Montauk, N. Y.	1951	Philip Chasin
Bonefish	16	38"	17⅛"	West Molokai, T. H.	1948	C. M. Cooke III
Bonito, Oceanic	31—8	35"	26"	Miami Beach, Fla.	1949	R. Lindquist
Cobia	102	70"	34"	Cape Charles, Va.	1938	J. E. Stansbury
Cod	57—8	56"	....	Ambrose Lightship, N. Y.	1949	J. Rzeszewicz
Dolphin	71—6	50"	....	Mafia Channel, E. Africa	1950	A. Conan Doyle
Drum, Black	87—8	52"	36"	Cape Charles, Va.	1950	Mrs. H. A. Bradley, Jr.
Flounder, Summer	20	37"	32"	Oak Beach, N. Y.	1948	F. H. Kessel
Kingfish (King Mackerel)	73—8	62"	32"	Bimini, Bahamas	1935	L. B. Harrison
Marlin, Blue	742	154½"	68"	Bimini, Bahamas	1949	Aksel Wichfield
Marlin, Pacific Black	976	152"	74"	Bay of Islands, N. Z.	1926	Capt. Laurie Mitchell
Marlin, Silver	618	138"	62"	Tahiti	1930	Zane Grey
Marlin, Striped	692	161"	....	Balboa, California	1931	A. Hamann
Marlin, White	161	104"	33"	Miami, Florida	1938	L. F. Hooper
Permit	41	40½"	33"	Islamorada, Fla.	1951	E. J. Arnold
Pollack	16	34"	21"	Watch Hill Reef, R. I.	1950	G. A. Albrecht
Roosterfish	66	54¾"	35"	Bahia de Los Angeles, Mexico	1949	W. R. Good
Sailfish, Atlantic	123	44"	32¾"	Walker Cay, Bahamas	1950	H. Teeter
Sailfish, Pacific	221	129"	....	Santa Cruz Is., Galapagos	1947	C. W. Stewart
Sawfish	736	175"	....	Galveston, Texas	1933	Gus Pangarakis
Shark, Mako	1000	144"	....	Mayor Island, N. Z.	1943	B. D. H. Ross
Shark, Porbeagle	260	48"	68¾"	Durban, S. Africa	1949	J. L. Daniel
Shark, Thresher	922	....	....	Bay of Islands, N. Z.	1937	W. W. Dowding
Shark, Tiger	1382	166"	93"	Sydney Heads, Australia	1939	Lyle Bagnard
Shark, White	1919	176"	96½"	Kangaroo Island, Australia	1941	G. R. Cowell
Snook (Robalo)	50—8	55"	....	Gatun Spillway, Canal Zone	1944	J. W. Anderson
Swordfish	860	165"	70"	Tocopilla, Chile	1940	W. E. S. Tuker
Tarpon	247	89½"	....	Panuco River, Mexico	1938	H. W. Sedgwick
Tuna, Allison	265	73"	53"	Makua, Hawaii	1937	J. W. Harvey
Tuna, Bluefin	977	116"	94½"	St. Ann Bay, Nova Scotia	1950	D. McI. Hodgson
Wahoo	133—8	83"	31"	Green Cay, Bahamas	1943	K. L. Ames, Jr.
Weakfish	17—8	46"	19"	Mullica River, N. J.	1944	A. Weisbecker, Jr.
Weakfish, Spotted	15—3	34½"	20½"	Fort Pierce, Fla.	1949	C. W. Hubbard
Yellowtail	90	59"	35½"	La Paz, Mexico	1948	F. Hickey

Caught with Rod and Reel in Fresh Water

Source: Field & Stream, 515 Madison Avenue, New York 22, N. Y.

Black Bass, Largemouth	22—4	32½"	28½"	Montgomery Lake, Ga.	1932	George W. Perry
Black Bass, Smallmouth	10—8	22½"	21¼"	Wheeler Dam, Ala.	1950	T. S. Hudson
Bluegill (Sunfish)	4—12	15"	18¼"	Katona Lake, Ala.	1950	T. S. Hudson
Carp	42	42"	29"	Rappahannock River, Va.	1930	Robert W. Harris
Catfish, Channel	55	50"	27"	James River, S. D.	1949	Roy A. Groves
Muskellunge	69—11	63½"	31¼"	Chippewa Flowage, Wis.	1949	Louis Spray
Perch, Yellow	4—3½	....	....	Bordentown, New Jersey	1865	Dr. C. C. Abbot
Pickerel, Eastern chain	9	30"	15"	Green Pond, N. J.	1948	Russell Kimble
Pike, Northern	46—2	52½"	25"	Sacandaga Reservoir, N. Y.	1940	Peter Dubuc
Pike, Walleyed	22—4	36¼"	21"	Fort Erie, Ontario	1943	Patrick E. Noon
Salmon, Atlantic	79—2	....	....	Tanaelv, Norway	1923	Henrik Henriksen
Salmon, Chinook	83	....	....	Umpqua River, Oregon	1919	F. R. Steel
Salmon, Landlocked	22—8	36"	....	Sebago Lake, Maine	1907	Edward Blakely
Trout, Brook	14—8	....	....	Nipigon River, Ontario	1916	Dr. W. J. Cook
Trout, Brown	39—8	....	....	Loch Awe, Scotland	1866	W. Muir
Trout, Cutthroat	41	39"	....	Pyramid Lake, Nevada	1925	John Skimmerhorn
Trout, Dolly Varden	32	40½"	29¾"	Pend Oreille Lake, Idaho	1949	N. L. Higgins
Trout, Lake	63	47½"	....	Lake Athapapuskow, Manitoba	1930	Miss L. L. Hayes
Trout, Rainbow or Steelhead	37	40½"	28"	Pend Oreille Lake, Idaho	1947	Wes Hamlet
White Perch	4—12	19½"	13"	Messalonskee Lake, Maine	1949	Mrs. Earl Small

FLY AND BAIT CASTING

Source: L. S. Williams, Executive Secretary, National Association of Angling and Casting Clubs.

WORLD RECORDS

Official Distance Events

	Feet
Trout fly (average)—Dick Miller, Huntington Beach, Calif.	176⅔
Trout fly (long cast)—Dick Miller	183
Salmon fly (average)—Jimmie Green, San Francisco	198⅔
Salmon fly (long cast)—Jimmie Green	206
⅜-oz. bait (average)—Earl Osten, Long Beach, Calif.	409⅔
⅜-oz. bait (long cast)—Wilbur Brooks, Indianapolis	427
⅜-oz. bait (average)—Clarence Anthes, Waukesha, Wis.	359⅔
⅜-oz. bait (long cast)—Clarence Anthes	385

Official Accuracy Events

	Pts.
Dry fly—Frank Steel, Chicago; Allan Childers, San Francisco; Marvin Allen, Chicago	100
Wet fly—Held by 30 casters	100
⅜-oz. bait—J. A. Halbeib, Louisville, Ky.	100
⅜-oz. bait—S. G. Dennis, Chicago; Adelea McDonald, Chicago; Charles Sutphin, Indianapolis	99

Combined Events Recordholders

All-accuracy—Charles Schall, St. Louis	390 pts.
Accuracy flies—Charles Schall	199 pts.
Accuracy baits—Charles Sutphin	197 pts.
All-distance—Earl Osten	3145 ft.
Distance baits—Lee Sens, New Orleans	2174 ft.
Distance flies—Dick Miller	1091 ft.

1951 National Championships

(At Washington, D. C., Aug. 15–19)

Combined

All-around—Marion V. Garber, Toledo	——
All-distance—Herbert C. Neumann, St. Louis	2903 ft.
All-accuracy—Charles Schall, St. Louis	391 pts.
Distance baits—William Lovely, St. Louis	2078 ft.
Distance flies—Myron C. Gregory, San Francisco	1089 ft.
Accuracy flies—Charles Schall	199 pts.
Accuracy baits—Herb Qualls, Nashville, and Frank J. Nulty, Chicago (tie)	194 pts.

WOMEN

All-accuracy—Joan Salvato, Paterson, N. J.	370 pts.
Accuracy baits—Bonnie Glatz, Chicago	191 pts.
Accuracy flies—Joan Salvato	194 pts.

JUNIORS

All-accuracy—Tim Hubbard, San Diego, Calif.	380 pts.
Accuracy baits—Paul Mashburn, Jr., Daytona Beach, Fla.	190 pts.
Accuracy flies—Tim Hubbard	195 pts.

Distance Events

	Avg., feet	Long cast
⅜-oz. bait—William Lovely	325⅓	327
⅝-oz. bait—Phil L. Varney, St. Louis	376	386
Trout fly—Myron C. Gregory	165⅓	179
Salmon fly—Myron C. Gregory	197⅔	201

Accuracy Events

	Pts.
Dry fly—Lee R. Slaughter, Jr., Dallas	99
Wet fly—Sam J. Thompson, Hagerstown, Md.	100
⅜-oz. bait—James H. Wine, Dayton, Ohio	99
⅝-oz. bait—Len Williams, St. Louis	99

WOMEN

Dry fly—Joan Salvato	96
Wet fly—Joan Salvato	98
⅜-oz. bait—Bonnie Glatz	94
⅝-oz. bait—Bonnie Glatz	97

JUNIORS

Dry fly—Tim Hubbard	98
Wet fly—Dick Ashman, Memphis, Tenn.	97
⅜-oz. bait—Beverley Bright, Indianapolis	94
⅝-oz. bait—Tom Rathke, Dayton, Ohio	97

Fishermen's Events

All-around—Lee R. Slaughter, Jr., and Bryant Black, Dallas (tie)	——
Distance bait—Barney Berlinger, Harrisburg, Pa.	241 avg., 244 long cast
Comb. fly—John Dieckman, Paterson, N. J.	112 pts.
Distance fly—Joan Salvato	125⅔ avg., 130 long cast
Accuracy bait—Robert Budd, Clarksville, Ind.	84 pts.
Fishermen's distance—John Dieckman	990 ft.
Fishermen's accuracy—Robert Budd	196 pts.
Women's accuracy bait—Mrs. F. M. Bonner, Jr., Houston, Texas	62 pts.
Juniors' accuracy bait—Tom Rathke	50 pts.

Professional

Fishermen's all-around—Ben Hardesty, Detroit	—
All-accuracy—Ben Hardesty	385 pts.

Five-Man Team Event

Barberton (Ohio) Casting Club	451 pts.

Club Pennant

St. Louis Fly and Bait Casting Club	22 pts.

Koblet Tour de France Victor

Hugo Koblet of Switzerland won the 1951 Tour de France, bicycle racing's outstanding event. Koblet covered the 2,909 miles in the accumulated time of 142 hours 20 minutes 14 seconds. Raphael Geminiani of France was second, 22 minutes behind the victor, and Lucien Lazarides of France was third.

Leading finishers follow:

	h. m. s.
1. Hugo Koblet, Switzerland	142:20:14
2. Raphael Geminiani, France	142:42:14
3. Lucien Lazarides, France	142:41:30
4. Gino Bartali, Italy	142:43:23
5. Constant Ockers, Belgium	142:53:37
6. Pierre Barbotin, France	142:55:54
7. Fiorenzo Magni, Italy	142:59:28
8. G. Bauvin, France	143:05:37
9. Bernado Ruiz, Spain	143:05:09
10. Fausto Coppi, Italy	143:07:05

RIFLE AND PISTOL SHOOTING

Source: Paul B. Cardinal, National Rifle Association of America.

National Outdoor Small-Bore Rifle Records

The X count is used in most small-bore records to break ties. The X-ring on the target is a circle within the 10-ring and in a case where two or more competitors have the same point score, the one with the most X's is declared the winner. (m) indicates metallic sight used. (a) indicates any sight used.

INDIVIDUAL METALLIC SIGHTS

Dewar Course—W. B. Woodring 400-37X
40 shots, 50 yd.—Edward H. Cushing, Peter Romcovitz 400-39X
40 shots, 100 yd.—Arthur Cook 400-37X
40 shots, 50 m.—Peter Romcovitz 400-38X
20 shots, 200 yd.—C. C. Whipple 199-12X

INDIVIDUAL ANY SIGHTS

Dewar Course—C. C. Whipple 400-39X
40 shots, 50 yd.—Otto Kolb ..... 400-40 + 5X
40 shots, 100 yd.—Jik Johnson, Erv Brehm 400-37X
40 shots, 50 m.—Jack Folk 400-39X
20 shots, 200 yd.—A. F. Goldsborough 200-14X

AGGREGATE

(40 shots at 50 yd., 100 yd., 50 meters, and Dewar Course)

Metallic sights—Dave Carlson 1600-144X
Any sights—Peter Romcovitz 1600-138X
Total of both—Peter Romcovitz 3198-268X

FOUR-MAN TEAM (DEWAR COURSE)

Metallic sights—Phoenix Rod and Gun Club No. 1 ..... 1595-110X
Any sights—Capitol City R. C. 1599-123X
Junior (m)—Pinwheel Jr. R. C. 1570-73X
Junior (a)—Pinwheel Jr. R. C. 1579-75X
Women (m)—Los Angeles "Babes" 1569-77X
Women (a)—Los Angeles "Babes" 1581-91X

INDIVIDUAL METALLIC SIGHTS (JUNIOR)

Dewar Course—Arthur Cook 400-32X
40 shots, 50 yd.—Joe Specht 400-36X
40 shots, 100 yd.—Richard W. Waters 400-23X
40 shots, 50 m.—John Symmes 399

INDIVIDUAL ANY SIGHTS (JUNIOR)

Dewar Course—Arthur Cook, Collins F. Kellogg, Rex Brewster 400-30X
40 shots, 50 yd.—Earl Taylor 400-36X
40 shots, 100 yd.—Miss Audrey Bockmann 400-31X
40 shots, 50 m.—David Rosenberg 400-34X

INDIVIDUAL METALLIC SIGHTS (WOMEN)

Dewar Course—Cora Converse, Marlene Bellinger, Elinor Bell 400-30X
40 shots, 50 yd.—Elma Cornish 400-35X
40 shots, 100 yd.—Anna Lou Barker 400-23X
40 shots, 50 m.—May E. Kell, Elinor Bell 400-29X
20 shots, 200 yd.—Mrs. L. P. Bartlett 194-6X

INDIVIDUAL ANY SIGHTS (WOMEN)

Dewar Course—Mrs. Freddie Allen 400-32X
40 shots, 50 yd.—Gladys Rising 400-38X
40 shots, 100 yd.—Ruth Johnson 400-34X
40 shots, 50 m.—Adelaide McCord 400-36X
20 shots, 200 yd.—Mrs. L. P. Bartlett 197-4X

National Outdoor Pistol Records

(s)—Slow fire; (t)—timed fire; (r)—rapid fire.

INDIVIDUAL .22 CALIBER

50 yd. (s)—Harry Reeves 198
25 yd. (t)—Harry Reeves ..... 200 + 80 10's
25 yd. (r)—Huelet L. Benner ..... 200 + 25 10's
National Match Course—Harry Reeves 98, 100, 100-298
Camp Perry Course—Huelet L. Benner ..... 300 + 10 10's

INDIVIDUAL CENTER FIRE (.38 CALIBER)

50 yd. (s)—Harry Reeves 198
25 yd. (t)—Harry Reeves ..... 200 + 50 10's
25 yd. (r)—Emmett E. Jones, J. E. Clark, T. E. Barrier 200
National Match Course—Alfred W. Hemming 298
Camp Perry Course—Emmett E. Jones 299

INDIVIDUAL .45 CALIBER

50 yd. (s)—Huelet L. Benner 197
25 yd. (t)—U. O. Drexl, Harry Reeves ..... 200 + 5 10's
25 yd. (r)—Harry Reeves 199
National Match Course—Harry Reeves, M. W. Billing, H. L. Benner 295
Camp Perry Course—Harry Reeves, Don Mullican 297

INDIVIDUAL AGGREGATE

(Slow, timed, rapid and National Match Course)

.22 caliber—Huelet L. Benner 891
Center fire—T. E. Barrier 833
.45 caliber—Huelet L. Benner 882
Three caliber—Harry Reeves 2627

1951 NATIONAL CHAMPIONS

Pistol—Sgt. First Class Huelet Benner, Fort Knox, Ky. 2629
Smallbore rifle—Mason Kline, San Francisco 3178
High-power rifle (service rifle-M1)—2d Lieut. Remes, Camp Lejeune, N. C. ..... 430-27 V's
High-power rifle (match rifle)—Thomas R. Barnes, Billings, Mont. ..... 433-43 V's

The V ring is a smaller bullseye within the bullseye which is used to break ties.

WOMEN

Pistol—Gloria Norton, Woodland, Calif. 2497
Smallbore rifle—Elinor Bell, Santa Monica, Calif. 3148
High-power rifle (match rifle)—Helen Orme-Johnson, El Paso, Texas 403

FOUR-MAN TEAM

(All on Camp Perry courses; not used since Jan. 1, 1950)

.22 Nat'l Match Course—U. S. Treasury 1172
Center fire, National Match Course—Detroit Police 1165
.45 Nat'l Match—Marine Corps School 1157

INDIVIDUAL .22 CALIBER (WOMEN)

50 yd. (s)—Esther Sichler, Gloria Norton 190
25 yd. (t)—Gloria Norton 200
25 yd. (r)—Gloria Norton 198
National Match Course—Gloria Norton 296
Camp Perry Course—Gloria Norton 299

INDIVIDUAL CENTER FIRE (WOMEN)

50 yd. (s)—Gloria Norton 189
25 yd. (t)—Gloria Norton 199
25 yd. (r)—Gloria Norton 192
National Match Course—Gloria Norton 291
Camp Perry Course—Gloria Norton 298

INDIVIDUAL .45 CALIBER (WOMEN)

50 yd. (s)—Margaret Culbertson 178
25 yd. (t)—Gloria Norton 195
25 yd. (r)—Margaret Culbertson 188
National Match Course—Margaret Culbertson 279

War Department Matches, 1951

National individual pistol—Major Thurman Barrier, U. S. Marine Corps 297
National pistol team—U. S. Marines (Lt. Col. Walter Walsh, Major Thurman Barrier, T/S Walter Devine, M/S J. Fowler) ....
National Trophy individual rifle—M/S Richard W. Boyer, U. S. M. C., Camp Lejeune 240

Jackson Rifle Victor

Arthur Jackson of the United States won the small-bore rifle-shooting championship at the 1951 Pan-American Games in Buenos Aires with a score of 591 x 600.

SKEET SHOOTING

Source: National Skeet Shooting Association

National Championships, 1951

(At Dallas, Texas, Aug. 5–11)

High-over-all—Francis L. Ellis, Jacksonville, Fla.	543 x 550
All gauge—T/Sgt. Glen W. Van Buren, Carswell A. F. B., Fort Worth, Texas.	*250 x 250
Service individual—T/Sgt. Glen W. Van Buren	*250 x 250
Senior—Joseph M. George, Sudlersville, Md.	246 x 250
Collegiate—Tony Roth, Omaha, Nebr. (Northwestern)	247 x 250
All gauge 2-man team—Herman F. Ehler, Dallas-J. C. Adams, III, LaRue, Texas	498 x 500
Parent-and-child—Fred Alford, Sr.-Fred Alford, Jr., Dallas	491 x 500
Husband-and-wife—R. H. and Ann Hecker, Tucson, Ariz.	493 x 500
Open 5-man team—Texas (D. W. Conway, Clint; Herman F. Ehler, Dallas; George W. Glass, Jr., Midland; J. C. Adams, III, LaRue; J. Ed Green, Dallas)	1236 x 1250
Service 5-man team—Strategic Air Command, Fort Worth (T/Sgt. Glen W. Van Buren, T/Sgt. Cecil B. Jones, Pfc. Mickey Michaelis, M/Sgt. Forrest T. Barnes, Col. C. T. Edwinson)	‡1234 x 1250
20 gauge—Ed C. Scherer, San Antonio, Texas	*100 x 100
20 gauge 2-man team—Francis L. Ellis-Emmett Lee, Jacksonville, Fla.	198 x 200
Small gauge—Benjamin Di Iorio, Jr., Utica, N. Y.	*100 x 100
Small gauge 2-man team—Ed C. Scherer-Robert M. Brown, San Antonio	196 x 200
Sub-small gauge—Francis L. Ellis	99 x 100
Sub-small 2-man team—Grant Ilseng, Houston-Galladay Stratton, Jr., Waco, Texas	191 x 200
Champion of champions—Grant Ilseng	*100 x 100
Western Open—Art Durando, Los Angeles	*100 x 100
Eastern Open—Howard P. Cady, San Diego, Calif.	*100 x 100
East-West team championship—West	1993 x 2000

WOMEN

High-over-all—Mrs. R. H. Hecker	†535 x 550
All gauge—Mrs. R. H. Hecker	*248 x 250
20 gauge—Mrs. Leon Mandel, Chicago	*100 x 100
Small gauge—Mrs. Leon Mandel	98 x 100
Sub-small gauge—Mrs. R. H. Hecker	91 x 100

JUNIOR

High-over-all—Angelo Spicola, Tampa, Fla.	‡529 x 550
All gauge—Robert A. Smith, Silver Spring, Md.	‡248 x 250
20 gauge—Barney H. Hilburn, Jr., Dallas, Texas	99 x 100
Small gauge—Jimmy Clark, Bartlesville, Okla.	98 x 100
Sub-small gauge—Angelo Spicola	‡97 x 100
Girls' all gauge—Carole Simmons, Kansas City, Mo.	87 x 100
Sub-junior all gauge—Edward Harris, Galveston, Texas	‡100 x 100
Girls' sub-junior—Harriett Schoch, Dallas	‡72 x 100

INDUSTRY

High-over-all—D. Lee Braun, San Mateo, Calif.	542 x 550
All gauge—J. V. Eliot, Jr., Pasadena, Calif.	249 x 250
20 gauge—George F. Heaney, Indianapolis	*100 x 100
Small gauge—D. Lee Braun	*100 x 100
Sub-small gauge—D. Lee Braun	96 x 100

* Equals world record. † World record. ‡ Tournament record.

Holland First in Bobsled Test

Carl Holland of Youngstown, N. Y., and Edmund Nelson of New York City finished first and second, respectively, in the Swiss international skeleton bobsled championship at St. Moritz last year. Holland completed six descents of the 956-yard Cresta run in a total time of 282.6 seconds.

TRAPSHOOTING

Source: John F. X. Condon, Sports Publicity Director, New York Athletic Club.

Grand American Champions, 1951

(At Vandalia, Ohio, Aug. 17–25)

GRAND AMERICAN HANDICAP

Men—E. Michael Wayland, Washington, Kan. (21 yd.)	99 x 100
Women—Mrs. Ruth Winterrowd, Chicago (21 yd.)	94 x 100
Junior—Ronald Mosier, Fresno, Calif. (19 yd.)	96 x 100
High professional—Cliff Doughman, Morrow, Ohio (25 yd.)	91 x 100

CHAMPION OF CHAMPIONS

Men—Ned Lilly, Stanton, Mich.	100 x 100
Women—Mrs. William Isetts, Kenosha, Wis.	96 x 100
Junior—Ronald Gaude, Natchez, Miss.	99 x 100

NORTH AMERICAN CLAY TARGET

Men—Ralph Smith, Vandalia, Ohio	200 x 200
Women—Corrine Farrell, Yakima, Wash.	192 x 200
Junior—George Genereux, Saskatoon	193 x 200
Sub-junior—Dick Baldwin, Danbury, Conn.	188 x 200
Professional—Rudy Etchen, Seattle	198 x 200

HIGH-OVER-ALL

Men—Arnold Riegger, Seattle	966 x 1000
Women—Iva Pembridge, Phillipsburg, Kan.	954 x 1000
Junior—George Genereux	942 x 1000
Professional—Rudy Etchen	969 x 1000

NATIONAL DOUBLES

Men—M. D. Clark, Woodbury, Conn.	96 x 100
Women—Iva Pembridge	91 x 100
Junior—Dwayne Brownlee, Wichita, Kan.	87 x 100
Professional—Rudy Etchen	98 x 100

ALL-AROUND

Men—Arnold Riegger	388 x 400
Women—Iva Pembridge	376 x 400

PRELIMINARY HANDICAP

Men—Walter McVey, Providence, Pa. (21 yd.)	99 x 100
Women—Mrs. C. F. Ruth, Milwaukee (17 yd.)	95 x 100
Junior—Dick Baldwin (18 yd.)	98 x 100
Professional—Henry Marsh, Wilmington, Del. (18 yd.)	97 x 100

OTHER CHAMPIONS

Vandalia Handicap—William Akers, Dayton, Ohio (19 yd.)	100 x 100
Veterans'—Forest McNeir, Houston	99 x 100
Women veterans'—Mrs. H. B. Rader, Jeffersonville, Ohio	93 x 100
Father-and-son—Dr. I. S. and Ned Lilly	199 x 200
Brother-and-brother—George and H. C. Fisher, Findlay, Ohio	195 x 200
Husband-and-wife—Mr. and Mrs. Wade Pfost, Phillipsburg, Kan.	197 x 200
Zone singles—Arnold Riegger	99 x 100
Zone team race—West (Arnold Riegger, Herbert N. Ferguson, Carl Collard, Maynard Henry, John M. Simpson)	976 x 1000
State team race—Illinois (Bobbie Lee Stifal, Homer Clark, Sr., Scotty Scobie, Paul Markwalder, Herbert Langdon)	983 x 1000

CLASS CHAMPIONS

AA—Bobby Lee Stifal, Casey, Ill.	200 x 200
A—Orley Milligan, Coos Bay, Oreg.	199 x 200
B—W. H. Spraldin, Jr., Keyes, Okla.	193 x 200
C—Jacob Lutz, Union, Ohio	197 x 200
D—Harold Lohman, Richfield, Wis.	196 x 200
Professional—Rudy Etchen	199 x 200

Amateur Championships at Clay Targets, 1951

(At New York A. C. Travers Island, Pelham Manor, N. Y., May 11–13.)

16-yd. single target—E. Johnson, Wingdale, N. Y.	194 x 200
Doubles—Col. John B. Grier, Rockland, Del.	95 x 100
Senior (over 70 years)—Elmer E. Gardner, Bernardsville, N. J.	92 x 100
Women—Mrs. Van N. Marker, Evanston, Ill.	87 x 100
Junior—Dick Baldwin, Danbury, Conn.	96 x 100
Distance handicap—Howard Lewis, Uhlerstown, Pa. (21 yd.)	98 x 100

CURLING

1950-51 TROPHY WINNERS

(Skips in parentheses)

Source: Edwin W. Fiske, Jr., Grand National Curling Club of America.

AT ST. ANDREWS G. C., MOUNT HOPE, N. Y., DEC. 15-17

Utica Cup—New York Caledonia C. C. (W. Cuthbertson)
Tom Archibald Cup—Ardsley C. C. (D. D. Sutphen)

AT ST. ANDREWS GOLF CLUB, JAN. 12-14

Douglas Medal—St. George, Montreal (G. Hawkins)
Griffith Medal—Hamilton Thistle C. C., Toronto (C. Cassels)

AT NASHUA (N. H.) C. C., JAN. 19-21

Granite State Trophy—St. George, Montreal (F. C. Rubbra)
Paterson Memorial Trophy—The Country Club, Brookline (R. T. Young)

AT UTICA (N. Y.) C. C., JAN. 25-28

Mitchell Medal—Kingston, Ontario (J. A. Shamess)
Allen Memorial Medal—Lachine, Quebec (Chris McKay)
The Country Club Cup—Orillia, Ontario (Dr. B. R. Gardiner)
Dewar Trophy—Toronto Granites (W. S. Tomenson)

AT THE COUNTRY CLUB, BROOKLINE, FEB. 3-4

Dykes Trophy—Utica C. C. (M. Waterbury)
Brookline Trophy—N. Y. Caledonia C. C. (J. Newton)

AT SCHENECTADY (N. Y.) C. C., FEB. 16-18

Gordon Medal—Utica C. C. (R. Read)
Emmett Medal—Utica C. C. (R. W. Keyes)
Mohawk Trophy—The Country Club (R. Hallowell)

DISTRICT CHAMPIONSHIPS, FEB. 24-25

No. 1 (Utica, N. Y.)—Utica C. C. (R. W. Murray)
No. 2 (Mount Hope, N. Y.)—St. Andrews G. C. (C. Arndt)
No. 3 (Brookline, Mass.)—The Country Club (W. E. Barrett)

AT THE COUNTRY CLUB, MARCH 2-4

Stockton Cup—Nashua Country Club (A. Sanborn)
Clyde Park Cup—Schenectady C. C. (R. Davis)

AT MONTREAL, MARCH 8-9

Royal Caledonian Trophy—St. George's, Montreal (F. C. Rubbra)
St. Lawrence Trophy—Heather C. C., Montreal (B. M. Adair)

AT MONTREAL, MARCH 10

Gordon International Medal—Canada beat the United States, 413 to 366.

MANITOBA BONSPIEL (AT WINNIPEG, FEB. 6-10)

British Consols Trophy—Strathcona C. C., Winnipeg (C. Roy Forsyth)

QUEBEC INTERNATIONAL BONSPIEL

Grand Aggregate—Edmundston, N. B. (E. J. St. Pierre)
Lieutenant-Governor's Trophy—Edmunston

1951 Canadian Championship

(At Halifax, N. S., March 6-10)

FINAL STANDING OF THE RINKS

	W.	L.		W.	L.
Nova Scotia	10	0	New Brunswick	3	7
British Columbia	7	3	Northern Ontario	3	7
Saskatchewan	7	3	Quebec	3	7
Manitoba	7	3	Prince Ed. Island	2	8
Alberta	6	4	Newfoundland	1	9
Ontario	6	4			

Longsdorf Pointer Quail Hunt Victor

Warhoop Jake, a pointer owned by Dr. H. E. Longsdorf of Mount Holly, N. J., won the National Field Trial Club's free-for-all quail hunt championship in 1951. The event, held at Shuqualak, Miss., drew a field of forty-six bird dogs.

ROLLER SKATING

A. R. S. A. CHAMPIONS, 1951

Source: United States American Roller Skating Association

National

Men's senior—Jude Cull, Elizabeth, N. J.
Women's senior—Mary Louise Leahey, Elizabeth, N. J.
Men's intermediate—James Mazel, Jr., Plymouth, Mich.
Women's intermediate—Joyce Bonocore, Hackensack, N. J.
Men's junior—Frank Henrich, Mineola, N. Y.
Women's junior—Barbara Trayer, Mineola, N. Y.
Men's novice—Billy Ferrara, Plymouth, Mich.
Women's novice—Margie Adair, Trenton, N. J.
Juvenile boys'—George Bonocore, Hackensack, N. J.
Juvenile girls'—Susan Lessne, Mineola, N. Y.

SENIOR PAIRS

Men—Jude Cull-John Haddad, Elizabeth, N. J.
Women—Mary Louise Leahey-Charlotte Ludwig, Elizabeth, N. J.
Mixed—Charlotte Ludwig-Jude Cull
Dance—Ann Feder-Edward O'Donnell, Mineola, N. Y.

FOURS

Senior—Elizabeth, N. J. (Ludwig, Cull, Leahey, Callahan)

SPEED

Men's senior—Burton Speed, Hackensack, N. J.
Women's senior—Marie Grosso, Mt. Vernon, N. Y.
Men's intermediate—John Bernhard, Alexandria, Va.
Women's intermediate—Lois Wilson, Bladensburg, Md.
Men's novice—Edward Swartz, Alexandria, Va.
Women's novice—Joan Hobeck, Alexandria, Va.
Men's junior—Edward Horan, Elizabeth, N. J.
Women's junior—Ellen Hughes, Bladensburg, Md.

RINK OPERATORS CHAMPIONS, 1951

Source: Roller Skating Rink Operators Association of America

American

Men's senior—Alvin Hurwitz, Brooklyn
Women's senior—Laurene Anseimy, Pontiac, Mich.
Men's intermediate—William Pate, Jr., Detroit
Women's intermediate—Nancy Kromis, Detroit
Men's novice—John M. Mazzucco, San Francisco
Women's novice—Opal Jordan, San Francisco
Boys' junior—Arthur Kerwin, Seattle
Girls' junior—Gail Locke, Detroit

PAIRS

Senior mixed—Cecil Davis-Phyllis Bulleigh, Denver
Intermediate—Robert LaBriolax-Lillian Bury, Brooklyn
Novice—Robert Tabacchi-Nancy Kromis, Detroit
Junior—Warren Galozza-Patricia Benedict, Elmont, N. Y.
Juvenile—Harry Abrami-Margaret Klein, Brooklyn

DANCE

Senior—Robert and Joan LaBriola, Brooklyn
Intermediate—William Phillips-Jeanne Raff, San Francisco

FOURS

Senior—Brooklyn (Gullo, Bury, R. LaBriola, Grasso)

SPEED

Men's senior—Harold Slack, Cleveland
Women's senior—Betty Jane Hager, Alliance, Ohio, and Margaret O'Connell, Brooklyn (tie)
Women's intermediate—Marilyn Bracken, Oakland, Calif.
Boys' junior—Norman Myers, Pennsville, N. J.
Girls' junior—Patricia Clark, Pennsville, N. J.

Miss Doris Hart of Coral Gables, Fla., and Frank Sedgman, Australia, defeated Mervyn Rose and Mrs. Nancye Bolton of Australia, 7-5, 6-2, in the final of the 1951 Wimbledon mixed doubles tennis championship.

AUTO RACING

THE FIRST automobiles on the road were erratic in action and driving them or even riding in them was considered a trifle risky, hence it became the sporting thing to do. Experimental excursions in crude cars gave rise to rivalry in speed over the rough roads of the Gay Nineties and this eventually led to formal contests, the first of which was a road race from Paris to Rouen in 1894, with 26 cars showing up at the starting line. Formal competition in the United States started with a road race in the Chicago district on Thanksgiving Day, 1895, and the winner, J. F. Duryea, covered the road distance of 54.36 miles at the astonishing average of 7.5 miles per hour!

Around 1900 Paris became the hub of road racing in Europe and each year there were raucous, dusty and dangerous races from Paris to Berlin, to Vienna, to Madrid and other cities on the Continent. Accidents were so numerous to drivers and spectators that, after a gory group of mishaps in the forepart of the Paris–Madrid race of 1903, the contest was halted at Bordeaux by public authorities and all road racing was brought under control. Other kinds of auto racing were exposed to view. Some contests, including 24-hour races for stock models, were held on circular or oval tracks originally built for horse racing. Finally came the special racing strips for autos, including such famous autodromes as Brooklands in England and the Indianapolis Speedway in the United States.

As a test of engine and chassis under severe conditions and great strain, auto racing rendered invaluable assistance in the development of the motor car of today.

National A. A. A. Champions

1909	Bert Dingley	1922	Jimmy Murphy	1935	Kelly Petillo
1910	Ray Harroun	1923	Eddie Hearne	1936	Mauri Rose
1911	Ralph Mulford	1924	Jimmy Murphy	1937	Wilbur Shaw
1912	Ralph DePalma	1925	Peter DePaolo	1938	Floyd Roberts
1913	Earl Cooper	1926	Harry Hartz	1939	Wilbur Shaw
1914	Ralph DePalma	1927	Peter DePaolo	1940	Rex Mays
1915	Earl Cooper	1928	Louis Meyer	1941	Rex Mays
1916	Dario Resta	1929	Louis Meyer	1946	Ted Horn
1917	Earl Cooper	1930	Billy Arnold	1947	Ted Horn
1918	Ralph Mulford	1931	Louis Schneider	1948	Ted Horn
1919	Howard Wilcox	1932	Bob Carey	1949	John Parsons
1920	Gaston Chevrolet	1933	Louis Meyer	1950	Henry Banks
1921	Tommy Milton	1934	Bill Cummings	1951	Tony Bettenhausen

History of the One-Mile Speed Mark

The first recorded effort for one mile was made in 1898 by Chasseloup-Laubat, driving a Jentaud, in France. His average was 39.23 m.p.h. This was increased to 65.79 in 1899 by Jenatzy, also in France. The first man to travel better than 100 m.p.h. was Rigolly, in 1904, at 103.56 m.p.h., followed by Baras, with 104.53 in the same year. The first over 200 m.p.h. was Major H. O. D. Segrave, who drove at 203.790 in 1927 at Daytona, Florida.

In 1947 John Cobb of London became the first person to travel more than 400 m.p.h. on land. The Englishman accomplished the feat on Sept. 16 at Bonneville, Utah, while raising the world mile record to 394.196 m.p.h. and the world kilometer (.62137 of a mile) mark to 393.825 m.p.h.

Cobb's fastest mile was covered in 8.93 seconds and his average speed was 9.1325 seconds. The Briton drove at the rate of 385.645 m.p.h. for the mile and 388.019 for the kilometer on the southward run, then increased his pace to 403.135 m.p.h. and 399.808, respectively, on the northward sprint, the best times ever recorded.

Those who drove 300 m.p.h. or better follow (all at Bonneville):

Date	Driver	Car	Average
Sept. 3, 1935	Sir Malcolm Campbell	Bluebird Special	301.1292
Nov. 19, 1937	Capt. G. E. T. Eyston	Thunderbolt #1	311.42
Aug. 27, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	345.5
Sept. 15, 1938	John Cobb	Railton	350.2
Sept. 16, 1938	Capt. G. E. T. Eyston	Thunderbolt #1	357.5
Aug. 23, 1939	John Cobb	Railton Red Lion	368.9
Sept. 16, 1947	John Cobb	Railton Mobil Special	394.196

Jenkins Sets Speed Records

Ab Jenkins smashed twenty-four land speed auto racing records, including five world unlimited marks, on the Bonneville Salt Flats in Utah on July 20, 1951. The 68-year-old driver set out to break forty world and American records in his run, but his car, a Mormon Meteor III, broke down three minutes away from a one-hour record.

Indianapolis Speedway Winners

(500-mile race)

Year	Winner	Car	Second	Third	Time	Average m.p.h.
1911	Harroun	Marmon	Mulford	Bruce-Brown	6:42:08	74.59
1912	Dawson	National	Tetzloff	Hughes	6:21:08	78.70
1913	Goux	Peugeot	Wishart	Merz	6:35:05	76.92
1914	Thomas	Delarge	Duray	Guyot	6:03:45	82.47
1915	DePalma	Mercedes	Resta	Anderson	5:33:55	89.84
1916*	Resta	Peugeot	De Aleve	Mulford	3:34:17	83.26
1917–18	No races					
1919	Wilcox	Peugeot	Hearne	Goux	5:40:42	88.06
1920	Chevrolet	Monroe	Thomas	Milton	5:38:32	88.50
1921	Milton	Frontenac	Sarles	Ford	5:34:44	89.62
1922	Murphy	Murphy Special	Hartz	Hearne	5:17:30	94.48
1923	Milton	H. G. S. Special	Hartz	Murphy	5:29:50	90.95
1924	Corum-Boyer	Duesenberg Special	Cooper	Murphy	5:05:23	98.23
1925	DePaolo	Duesenberg Special	Lewis	Shafer	4:56:39	101.13
1926†	Lockhart	Miller Special	Hartz	Woodbury	4:10:17	95.88
1927	Souders	Duesenberg	Devore	Gulatta	5:07:33	97.54
1928	Meyer	Miller Special	Moore	Souders	5:01:33	99.48
1929	Keech	Simplex Special	Meyer	Gleason	5:07:25	97.58
1930	Arnold	Hartz-Miller	Cantlon	Schneider	4:58:39	100.488
1931	Schneider	Bowes Special	Frame	Hepburn	5:10:28	96.629
1932	Frame	Miller Special	Wilcox	Bergere	4:48:03.79	104.144
1933	Meyer	Miller Special	Shaw	Moore	4:48:12.75	104.089
1934	Cummings	Miller Special	Rose	Moore	4:46:05.20	104.863
1935	Petillo	Gilmore Special	Shaw	Cummings	4:42:22.71	106.240
1936	Meyer	Ring Free Special	Horn	Mackenzie	4:35:03.39	109.069
1937	Shaw	Shaw-Gilmore Special	Hepburn	Horn	4:24:07.80	113.580
1938	Roberts	Burd Piston Reg. Special	Shaw	Miller	4:15:58.40	117.200
1939	Shaw	Boyle Special	Snyder	Bergere	4:20:47.39	115.035
1940	Shaw	Boyle Special	Mays	Rose	4:22:31.17	114.277
1941	Rose-Davis‡	Noc-Out Hose Clamp Special	Mays	Horn	4:20:36.24	115.117
1942–45	No races					
1946	Robson	Thorne Eng. Special	Jackson	Horn	4:21:16.71	114.820
1947	Rose	Blue Crown Special	Holland	Horn	4:17:52.17	116.338
1948	Rose	Blue Crown Special	Holland	Nalon	4:10:23.38	119.813
1949	Holland	Blue Crown Special	Parsons	Connor	4:07:15.97	121.327
1950§	Parsons	Wynn's Friction Proof Spl.	Holland	Rose	2:46:55.97	124.002
1951	Wallard	Belanger Special	Nazaruk	McGrath-Ayulo	3:57:33.05	126.244

* 300 miles. † Race ended at 400 miles owing to heavy rain. ‡ Davis drove 180 miles, Rose 320. § 1950 race ended at 345 miles because of rain.

CANOEING, 1951

Source: Walter Haner, Jr., Chairman, National Paddling Committee, American Canoe Association.

National Paddling Championships

(On Charles River basin, Boston, Aug. 5)

Team (high point trophy)—Yonkers (N. Y.) C. C. 46

SENIOR EVENTS—1,000 METERS

1-man single blade—F. Havens, Washington, D. C. 5:08.8
1-man double (Kayak)—J. Anderson, Yonkers C. C. 4:30.2
Tandem single—G. Byers-D. Bingham, Samoset C. C., Dedham, Mass. 4:32.8
Tandem double (Kayak)—P. Bochnewich-J. Anderson, Yonkers C. C. 4:04

SENIOR EVENTS—½ MILE

4-man single—Quineboquin C. C., West Roxbury, Mass. (J. Doherty, R. Spillane, P. Donahue, R. Moran) 3:43.7
4-man double—Yonkers C. C. (M. Budrock, J. Anderson, P. Bochnewich, R. Dunford) 3:34

JUNIOR EVENTS—½ MILE

1-man single—R. Moran, Quineboquin C. C. 4:27.2
Tandem single—R. Moran-P. Donahue, Quineboquin C. C. 4:13.3
Tandem double—H. Weidner-N. Rondinone, Yonkers C. C. 3:59.2
4-man single—Yonkers C. C. (S. Messur, A. Geraty, M. Budrock, C. O'Rourke) 3:58.2
4-man double—Yonkers C. C. (C. O'Rourke, H. Weidner, G. Smolinski, N. Rondinone) 3:47:8

JUNIOR EVENT—1,000 METERS

1-man double (Kayak)—W. Schuette, Potomac B. C., Washington, D. C. 4:38.6

SAILING

	Pts.
Decked canoes—Lou Whitman, Phoenix C. C., Lindenhurst, N. Y.	16.08
Cruising canoes—Douglas Cummings, Jr., Deer Lake C. C., Pines Lake, N. J.	30.30

North American Paddling

(At Sugar Island, Ganoque, Ontario, Aug. 18)

Team (high point trophy)—Yonkers C. C. 38

SENIOR

1-man single—N. Lane, Rideau C. C., Ontario
1-man double (Kayak)—M. Budrock, Yonkers C. C.
Tandem single—G. Neil-N. Lane, Ontario
Tandem double (Kayak)—J. Anderson-P. Bochnewich, Yonkers C. C.
4-man double—Yonkers (M. Budrock, P. Bochnewich, J. Anderson, R. Dunford)

JUNIOR

1-man single—John Rowland, Otterburn C. C., Ottawa
1-man double—R. O'Brien, Inwood C. C., New York
Tandem single—G. Neil-J. Drader, Carleton Place C. C., Ontario
Tandem double—H. Weidner-N. Rondinone, Yonkers C. C.

YACHTING

JASON sailed in search of the Golden Fleece. Cleopatra (according to Shakespeare) had a royal barge with purple sails. Columbus had three sailing ships when he crossed the Atlantic westward in 1492. But who the first sailor was and where he launched his primitive craft nobody ever will know. The word "yacht" is of Dutch origin and the first "yacht race" of record in the English language was a sailing contest from Greenwich to Gravesend and return in 1662 between a Dutch yacht and an English yacht designed and, at some part of the race, sailed by Charles II of England. The royal yacht won the contest.

The first yacht club was organized at Cork, Ireland, in 1720 under the name of the Cork Harbour Water Club, later changed to the Royal Cork Yacht Club. The Royal Yacht Squadron was organized at Cowes in 1812 and the name changed to the Royal Yacht Club in 1820. The New York Yacht Club was organized aboard the Stevens schooner "Gimcrack" on July 30, 1844, and a clubhouse erected at Elysian Fields, Hoboken, N. J., the following year.

From that time until the Civil War races were held over courses starting from the water off the yacht club promontory. One course was to the Sandy Hook Lightship and return.

In 1850 the celebrated "America" was built by a group of New York yachtsmen and sent abroad to compete at Cowes. In a race around the Isle of Wight, with a special cup as a prize, the "America" defeated fourteen English boats and brought back the trophy that has been raced for as "the America's Cup" in many international yacht races since that time.

AMERICA'S CUP RECORD

(Figures in parentheses indicate number of races won)

Dates	Winner, Owner, Country	Loser, Owner, Country
Aug. 22, 1851	AMERICA (1), J. C. Stevens, U. S.	*AURORA, J. Le Marchant, England
Aug. 8, 1870	MAGIC (1), F. Osgood, U. S.	CAMBRIA, J. Ashbury, England
Oct. 16–23, 1871	COLUMBIA (2), F. Osgood, U. S. SAPPHO (2), Wm. P. Douglass, U. S.	LIVONIA (1), J. Ashbury, England
Aug. 11–12, 1876	MADELEINE (2), J. Dickerson, U. S.	COUNTESS OF DUFFERIN, C. Gifford, Canada
Nov. 9–10, 1881	MISCHIEF (2), J. Busk, U. S.	ATALANTA, A. Cuthbert, Canada
Sept. 14–16, 1885	PURITAN (2), J. Forbes, U. S.	GENESTA, Sir R. Sutton, England
Sept. 9–11, 1886	MAYFLOWER (2), Gen. J. Paine, U. S.	GALATEA, Lt. Henn, R.N., England
Sept. 17–30, 1887	VOLUNTEER (2), Gen. J. Paine, U. S.	THISTLE, J. Bell, England
Oct. 7–13, 1893	VIGILANT (3), Messrs. Iselin-Morgan, U. S.	VALKYRIE, Lord Dunraven, England
Sept. 7–12, 1895	DEFENDER (3), Messrs. Iselin-Morgan, U. S.	VALKYRIE II, Lord Dunraven, England
Oct 16–20, 1899	COLUMBIA (3), Messrs. Iselin-Morgan, U. S.	SHAMROCK I, Sir Thomas Lipton, England
Sept. 28–Oct. 4, 1901	COLUMBIA (3), J. P. Morgan, U. S.	SHAMROCK II, Sir Thomas Lipton, England
Aug. 22–Sept. 3, 1903	RELIANCE (3), Iselin, et al, U. S.	SHAMROCK III, Sir Thomas Lipton, England
July 15–27, 1920	RESOLUTE (3), R. Emmons, et al, U. S.	SHAMROCK IV (2), Sir Thomas Lipton, England
Sept. 13–17, 1930	ENTERPRISE (4), Aldrich-Vanderbilt, U. S.	SHAMROCK V, Sir Thomas Lipton, England
Sept. 17–25, 1934	RAINBOW (4), H. S. Vanderbilt, U. S.	ENDEAVOUR (2), T. O. M. Sopwith, England
July 31–Aug. 5, 1937	RANGER (4), H. S. Vanderbilt, U. S.	ENDEAVOUR II, T. O. M. Sopwith, England

* Finished second. First race held off Cowes, Isle of Wight, England; from 1870 to 1920 races held off New York Bay; from 1930 to 1937 races held off Newport, R. I.

YACHTING CHAMPIONS IN 1951

Source: John Rendel, *The New York Times.*

World Star Class—SHANNON, E. W. (Skip) Etchells, Rocky Point, S. C., Old Greenwich, Conn.

Bacardi Cup (Star Class)—ESTRELLITA, James Schoonmaker, Miami, Fla.

Sears Cup (national junior championship)—George Reichhelm, Rocky Point, S. C., Old Greenwich, Conn.

National Snipe—Frank Seavy, Clearwater, Fla.

Mrs. Charles Francis Adams Trophy (national women's championship)—Seal Harbor Club, Maine Y. R. A. (Jane Smith, skipper).

British-American Cup (six-meter)—United States team (Goose, Llanoria, Firecracker).

Silas George Cup (six-meter)—CIRCE, Ray Dixon, Royal Canadian Y. C.

National Dinghy—Interclub Class, Arthur Knapp, Larchmont (N. Y.) Y. C. Penguin Class, Dick Sheehan, Manhasset Bay Y. C., Port Washington, N. Y.

Morss Trophy (intercollegiate dinghy)—Massachusetts Institute of Technology.

MacMillan Cup (intercollegiate big-boat) M.I.T. (Howard Fawcett, skipper).

Lightning Class Association—John Tiegland Jr., Spray Beach, N. J.

Raven Class national—Peter Geddes, Providence, R. I.

National one-design world—John Christianson, South Shore, Wis.

110-class world—Larry Conover, Mamaroneck, N. Y.

King's Cup (N. Y. Y. C. cruise)—BOLERO (yawl), John Nicholas Brown, New York.

WORLD STAR CLASS CHAMPIONS

Source: International Star Class Yacht Racing Association.

Year	Winner	Skipper	Skipper's fleet	Where held
1922	TAURUS	W. L. Inslee	Western L. I. Sound	Western L. I. Sound
1923	TAURUS	W. L. Inslee	Western L. I. Sound	Western L. I. Sound
1924	LITTLE BEAR	J. R. Robinson	Western L. I. Sound	Western L. I. Sound
1925	ACE	Adrian Iselin II	Western L. I. Sound	Western L. I. Sound
1926	RHODY	B. W. Comstock	Narragansett Bay	Western L. I. Sound
1927	TEMPE III	Walton Hubbard	Newport Harbor	Warwick, R. I.
1928	SPARKLER II	P. E. Edrington	New Orleans Gulf	Newport Beach, Calif.
1929	EEL	J. G. Johnson	Chesapeake Bay	New Orleans, La.
1930	PEGGY WEE	A. Knapp	Western L. I. Sound	Gibson Island, Md.
1931	COLLEEN	W. J. McHugh	Central L. I. Sound	Western L. I. Sound
1932	MIST	Edward Fink	Los Angeles Harbor	Southport, Conn.
1933	THREE STAR TWO	Glenn Waterhouse	E. San Francisco Bay	Los Angeles, Calif.
1934	BY-C	H. F. Beardslee	Newport Harbor	San Francisco, Calif.
1935	BY-C	H. F. Beardslee	Newport Harbor	Newport Beach, Calif.
1936	ACE	Adrian Iselin II	Western L. I. Sound	Rochester, N. Y.
1937	LECKY	Milton Wegeforth	San Diego Bay	Western L. I. Sound
1938	PIMM	Walter von Hutschler	Hamburg	San Diego, Calif.
1939	PIMM	Walter von Hutschler	Hamburg	Kiel, Germany
1940	RAMBUNCTIOUS	Jim Cowie	Los Angeles Harbor	San Diego, Calif.
1941	WENCH	George Fleitz	Los Angeles Harbor	Los Angeles, Calif.
1942	*	Harry G. Nye, Jr.	Southern Lake Mich	Chicago, Ill.
1943	*	Arthur M. Deacon	Western L. I. Sound	Bay Shore, N. Y.
1944	*	Gerald Driscoll	San Diego Bay	Chicago, Ill.
1945	*	Malin Burnham	San Diego Bay	Stamford, Conn.
1946	WENCH II	George Fleitz	Los Angeles Harbor	Havana
1947	GEM II	Durward Knowles	Nassau, Bahamas	Los Angeles, Calif.
1948	TWIN STAR	Lockwood M. Pirie	Wilmette Harbor, Ill.	Lisbon, Portugal
1949	GALE	Harry G. Nye, Jr.	Southern Lake Mich.	Chicago, Ill.
1950	SEA ROBIN	Robert Lippincott	West Jersey	Chicago, Ill.
1951	SHANNON	E. W. Etcheils	Central L. I. Sound	Gibson Island, Md.

* Indicates skipper's series in which the contestants drew for local boats each day and brought their own sails.

CHESS

Source: American Chess Bulletin of New York.

World Champions

1851–58	Adolph Anderssen, Breslau, Germany
1858–62	Paul Morphy, New Orleans, La.
1862–66	Adolf Anderssen, Breslau, Germany
1866–94	William Steinitz, Vienna, Austria
1894–1921	Emanuel Lasker, Berlin, Germany
1921–27	Jose R. Capablanca, Havana, Cuba
1927–35	Alexander A. Alekhine, Moscow, Russia
1935–37	Dr. Max Euwe, Amsterdam, the Netherlands
1937–46	Alexander A. Alekhine, Moscow, Russia*
1948–	Mikhail Botvinnik, Leningrad, Russia

*** Alekhine, a French citizen, died on March 23, 1946, leaving the world championship vacant.**

World Title Chess Match

Mikhail Botvinnik of Leningrad had a close call during 1951 in a match for his title with David Bronstein of Moscow, winner of the challengers' tournament sponsored by the International Chess Federation. The result was a tie, each scoring six points, while twelve games were drawn. The match conditions provided that the challenger must defeat the holder.

Reshevsky Chess Victor

Samuel Reshevsky of New York won the 1951 Wertheim international tournament at the Manhattan Chess Club, New York, with an 8–3 record.

United States Champions

1852–62	Paul Morphy, New Orleans, La.
1871–87	George H. Mackenzie, New York
1887–92	Max Judd, St. Louis, Mo.
1892–94	Simon Lipschuetz, New York
1894	Jackson W. Showalter, Georgetown, Ky.
1894	Albert B. Hodges, Staten Island, N. Y.*
1894–97	Jackson W. Showalter, Georgetown, Ky.
1897–1906	Harry Nelson Pillsbury, Boston, Mass.
1906–09	Jackson W. Showalter, Georgetown, Ky.
1909–36	Frank J. Marshall, New York
1936–44	Samuel Reshevsky, New York†
1944–46	Arnold S. Denker, New York
1946	Samuel Reshevsky, Boston
1948	Herman Steiner, Los Angeles
1951	Larry Evans, New York

*** Retired after winning return match with Showalter. † In 1942, Isaac I. Kashdan of New York was co-champion for a while because of a tie with Reshevsky in that year's tournament. Reshevsky won the play-off.**

Other Chess Champions, 1951

WORLD

Women—Mrs. Ludmilla Rudenko Moscow, U.S.S.R.

UNITED STATES

Open—Larry Evans, New York
Women—Mrs. Mary Bain, Miami, Fla.
Speed—Larry Evans
Junior—Sol Wachs, Philadelphia

Cuba Takes Baseball Honors

Cuba, with a 6–1 record, won the 1951 Pan-American Games baseball championship. Mexico finished second and the United States third.

MOTORBOATING

SINCE the source of power—the internal combustion engine—is the same in the motorboat as it is in the automobile, the history of motorboat racing parallels that of auto racing. There was a sporting risk in driving the early power boats. As soon as they began to show a degree of dependability, there came the informal rivalries of the rivers and lakes. These led to the formal contests of speed and endurance over marked courses under the control of the American Power Boat Association. The races were severe tests of all parts of power boats and what was learned in the annual Gold Cup competition, which started in 1904, caused a great improvement in the designing of engines and hulls. The development of the outboard motor opened up another branch of power boat competition of wide popularity.

Motorboating Statistics

Source: American Power Boat Association and *Motor Boating* Magazine.

GOLD CUP WINNERS

Beginning with 1922 the race for the American Power Boat Association Gold Cup was open only to displacement boats of over 25 feet in length and powered with motors of not more than 625 inches piston displacement. In 1946 the rules were liberalized to encourage the entry of smaller, less expensive craft. Boats now are required to be between 10 and 40 feet in length, with horsepower unlimited.

Year	Sponsor	Winner and owner	Time of best heat	Best heat speed m.p.h.
1904	Columbia Yacht Club	STANDARD, C. C. Riotte	1:33:30	23.6
1904	Columbia Y. C.	VINGT-ET-UN II, W. Sharpe Kilmer	1:27:03	25.3
1905	Chippewa Bay Y. C.	CHIP, J. Wainwright	1:52:38	15.9
1906	Chippewa Bay Y. C.	CHIP II, J. Wainwright	1:27:01	20.6
1907	Chippewa Bay Y. C.	CHIP II, J. Wainwright	1:26:43	20.8
1908	Chippewa Bay Y. C.	DIXIE II, E. J. Schroeder	0:58:13	30.9
1909	Thousand Islands Y. C.	DIXIE II, E. J. Schroeder	0:58:25	32.9
1910	Thousand Islands Y. C.	DIXIE III, F. K. Burnham	0:57:14	33.6
1911	Frontenac Y. C.	MIT II, J. H. Hayden	0:53:31	36.1
1912	Thousand Islands Y. C.	P. D. Q. II, Alfred G. Miles	0:44:59	44.5
1913	Thousand Islands Y. C.	ANKLE DEEP, C. S. Mankowski	0:41:03	50.49
1914	Lake George Reg. Assn.	BABY SPEED DEMON II, Paula Blackton	0:42:41	48.5
1915	L. I. Sound P. B. A.	MISS DETROIT, Miss Detroit P. B. A.	0:41:21	49.7
1916	Miss Detroit P. B. A.	MISS MINNEAPOLIS, Miss Minneapolis B. A.	0:52:12	36.8
1917	Miss Minneapolis B. A.	MISS DETROIT II, Garfield A. Wood	0:36:47	56.5
1918	Detroit Y. C.	MISS DETROIT III, Detroit Yachtsmen	0:34:36	52.1
1919	Detroit Y. C.	MISS DETROIT III, Garfield A. Wood	0:32:37	56.3
1920	Detroit Y. C.	MISS AMERICA, Garfield A. Wood	0:25:44	70.0
1921	Detroit Y. C.	MISS AMERICA, Garfield A. Wood	0:32:52	56.5
1922	Detroit Y. C.	PACKARD-CHRISCRAFT, J. G. Vincent	0:44:17.77	40.6
1923	Detroit Y. C.	PACKARD-CHRISCRAFT, J. G. Vincent	0:40:30	44.4
1924	Detroit Y. C.	BABY BOOTLEGGER, Caleb Bragg	0:33:48.61	46.4
1925	Columbia Y. C.	BABY BOOTLEGGER, Caleb Bragg	0:37:11	48.4
1926	Columbia Y. C.	GREENWICH FOLLY, G. H. Townsend	0:35:34	49.22
1927	Indian Harbor Y. C.	GREENWICH FOLLY, G. H. Townsend	0:35:13	50.99
1928	Red Bank & Columbia Y. C.	IMP, R. F. Hoyt	0:35:39.04	50 489
1930	Red Bank & Columbia Y. C.	HOTSY TOTSY, V. Kliesrath	0:32:07	56.05
1931	Montauk Y. C.	HOTSY TOTSY, V. Kliesrath-R. Hoyt	0:32:46.47	54.92
1932	Montauk Y. C.	DELPHINE IV, Horace E. Dodge	0:30:24	59.21
1933	Detroit Y. C.	EL LAGARTO, G. Reis	0:29:34.4	60.865
1934	Lake George Club	EL LAGARTO, G. Reis	0:31:00.4	58.06
1935	Lake George Club	EL LAGARTO, G. Reis	0:31:16	57.582
1936	Lake George Club	IMPSHI, Horace E. Dodge	0:38:13	47.120
1937	Detroit Y. C.	NOTRE DAME, Herbert Mendelson	0:26:13.32	68.645
1938	Detroit Y. C.	ALAGI, Theo Rossi	0:27:14.38	66.080
1939	Miss Detroit P. B. A.	MY SIN, Z. G. Simmons, Jr.	0:26:50.73	67.05
1940	Indian Harbor Y. C.	HOTSY TOTSY III, Sidney Allen	0:36:04.3	51.316
1941	Red Bank Reg. Assn.	MY SIN, Z. G. Simmons, Jr.*	—	52.509
1946	Detroit, Y. C.	TEMPO VI, Guy Lombardo	0:25:23.74	70.878
1947	South Shore Y. C.	MISS PEPS V, Walter, Roy and Russell Dossin	0:31:33.6	57.02
1948	Detroit Y. C.	MISS GREAT LAKES, Albin Fallon	0:31:19.82†	57.452†
1949	Detroit River R. A.	MY SWEETIE, Bill Cantrell	0:22:53.26	78.645
1950	Detroit River R. A.	SLO-MO-SHUN IV, Stanley S. Sayres	0:22:15.03	80.892
1951	Seattle Y. C.	SLO-MO-SHUN V, Stanley S. Sayres	0:19:37	91.765

* Only contestant. † Made by SUCH CRUST.

RECORDS FOR ONE-MILE STRAIGHTAWAY

Source: Clarence E. Lovejoy, Boating Editor, *The New York Times*, and Educational Consultant, 1475 Broadway New York 18, N. Y.

Class	Speed m.p.h.	Date	Place	Boat and driver
Unlimited hydroplane (world)	160.323	6/26/50	Seattle, Wash.	SLO-MO-SHUN IV, Stanley Sayres
Unlimited hydroplane (Canada)	138.645	10/ 2/49	Picton, Ontario	MISS CANADA IV, Harold Wilson
7 litre	95.361	10/ 1/51	New Martinsville	TOMYANN, Joe Taggart
225 cu. in. hydroplane (Div. I)	99.820	10/11/49	Salton Sea, Calif.	BELLIGERO II, Paul Sawyer, Jr.
225 cu. in. hydroplane (Div. II)	94.240	10/11/49	Salton Sea, Calif.	GREEN HORNET, L. O. Turner
151 cu. in. hydroplane	81.264	9/21/47	Washington, D.C.	UNCLE SAM I, Edison Hedges
135 cu. in. hydroplane	92.139	5/21/49	San Diego, Calif.	SKALAWAGGS, Roy Skaggs
91 cu. in. hydroplane	71.891	7/ 8/51	Bush River, Md.	MISS FORT PITT, Tony Margio
48 cu. in. hydroplane	72.727	10/ 1/51	New Martinsville	SHOOTING STAR, C. M. Scull
48 cu. in. runabout	55.475	7/ 8/51	Bush River, Md.	YANKEE BOY, R. McAllister
Pacific One-Design	59.90	5/21/49	San Diego, Calif.	CHERUB II, Dr. L. J. Novotny
Cracker Box runabout	68.562	10/10/49	Salton Sea, Calif.	LITTLE STINKER, Glen Miller
Jersey Speed Skiff	45.432	9/ 9/50	Ocean City, N. J.	CHANTICLEER, H. F. Disbrow
Class X out. hydro. (world)	79.04	5/20/39	Paris, France	——— Jean Dupuy
Class X out. hydro (U. S.)	78.44	11/ 1/39	Worcester, Mass.	———Clinton R. Ferguson
Class A out. hydro	50.281	11/19/45	Salton Sea, Calif.	———T. L. De Witt
Class B out. hydro	57.234	10/29/40	Salton Sea, Calif.	——— Jack Henckels
Class C out. hydro	63.549	11/19/45	Salton Sea, Calif.	——— Thomas Cooper
Class C serv. out. hydro	52.402	8/ 7/51	Seattle, Wash.	AIR EXPRESS, Bud Wiget
Class C racing out. run	58.445	10/30/50	Lake Alfred, Fla.	WHOT HOPPENED, B. King
Class C racing inb. runabout	64.286	10/ 1/51	New Martinsville	TORNADO, Les Trafton
Class C serv. out. run	51.613	5/21/49	San Diego, Calif.	MISS SANTA BARBARA, Tom Newton
Class D racing inb. runabout	69.769	10/ 1/51	New Martinsville	MY BOY WOODY, E. Pilescott
Class E racing inb. runabout	72.828	10/ 1/51	New Martinsville	THE FOX, Sam Griffith

RECORDS IN COMPETITION

Class	Dist.	Speed m.p.h.	Date	Place	Boat and driver
Unlimited	10(n)	111.7423	8/12/51	Seattle, Wash.	SLO-MO-SHUN IV, Lou Fageol
Gold Cup lap	3	108.663	8/ 4/51	Seattle, Wash.	SLO-MO-SHUN V, Lou Fageol
Gold Cup heat	30	91.766	8/ 4/51	Seattle, Wash.	SLO-MO-SHUN V, Lou Fageol
Gold Cup race	90	78.215	7/22/50	Detroit, Mich.	SLO-MO-SHUN IV, Ted Jones
Harmsworth lap	5(n)	102.676	9/ 2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
Harmsworth heat	40(n)	100.68	9/ 2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
Harmsworth race	80(n)	95.623	9/ 2/50	Detroit, Mich.	SLO-MO-SHUN IV, Lou Fageol
President's Cup heat	15	88.725	9/17/50	Washington, D. C.	MISS PEPSI, Chuck Thompson
Natl. Sweepstakes heat	10	87.464	8/11/49	Red Bank, N. J.	MY SWEETIE, W. J. Cantrill
Silver Cup heat	10(n)	107.394	9/ 4/50	Detroit, Mich.	MISS PEPSI, Chuck Thompson
Steel Cup heat	15	67.500	5/20/50	Pittsburgh, Pa.	SUCH CRUST II, Dan Arena
Harwood Trophy	30	64.400	9/11/49	New York, N. Y.	ETTA, George Sarant
Edinburn Trophy	9	68.123	9/ 6/48	Detroit, Mich.	Z-Z-ZIP, Sid Street
225 Class (Div. I)	5	83.488	9/30/51	New Martinsville	YOU ALL, Robert Rowland
225 Class (Div. II)	5	75.188	8/ 7/50	Picton, Ontario	LITER EGO, Paul Sawyer, Jr.
48 cu. in. hydroplane	5	53.121	8/11/51	Red Bank, N. J.	SHOOTING STAR, C. M. Scull
48 cu. in. runabout	5	50.920	8/11/51	Red Bank, N. J.	YANKEE BOY, R. McAllister
91 cu. in. hydroplane	5	59.960	2/17/51	St. Petersburg	RED WITCH, Jack Van Deman
135 cu. in. hydroplane	5	75.157	10/16/48	Salton Sea, Calif.	MIGHTY CHEVRON, Roy Skaggs
151 cu. in. hydroplane	5	59.133	9/18/46	Red Bank, N. J.	UNCLE SAM I, Edison Hedges
Pacific One-Design	5	53.763	8/21/49	Cambridge, Md.	CHERUB II, Dr. L. J. Novotny
Cracker Box inb. runabout	5	60.484	10/ 8/49	Salton Sea, Calif.	DRAGON-B-HIND, R. Phillips, Jr.
Jersey Speed Skiff	5	44.510	8/ 5/50	Red Bank, N. J.	FALCON, Ray Morris

(n) — Nautical miles.

HARMSWORTH TROPHY WINNERS

Year	Boat and Country	Speed*
1903	NAPIER I, France	19.53
1904	TREFLE-A-QUATRE, England	26.63
1905	NAPIER II, England	26.03
1906	YARROW-NAPIER, England	15.48
1907	DIXIE I, United States	31.78
1908	DIXIE II, United States	31.347
1910	DIXIE III, United States	35.04
1911	DIXIE IV, United States	40.28
1912	†MAPLE LEAF IV, England	43.18
1913	MAPLE LEAF IV, England	57.45
1920	MISS AMERICA I, United States	61.51
1921	MISS AMERICA II, United States	59.75
1926	MISS AMERICA V, United States	61.113
1928	MISS AMERICA VII, United States	59.325
1929	MISS AMERICA VIII, United States	75.287
1930	MISS AMERICA IX, United States	77.233
1931	MISS AMERICA VIII, United States	85.861
1932	MISS AMERICA X, United States	78.489
1933	MISS AMERICA X, United States	86.939
1949	SKIP-A-LONG, United States	94.285
1950	SLO-MO-SHUN IV, United States	100.680

* In statute miles per hour.
† First of hydroplanes to win, predecessors being all displacement craft.

OTHER CHAMPIONS, 1951

Source: Clarence E. Lovejoy.

National Sweepstakes (Red Bank, N. J.)—TEMPO VI, Guy Lombardo, Freeport, N. Y.
President's Cup (Washington, D. C.)—MISS PEPSI, Chuck Thompson, Detroit
Cruisers (Execution Light to Block Island)—MIAHA, John Gans, Staten Island, N. Y.

National Inboard Champions

HYDROPLANES

48 cubic inch (St. Petersburg, Fla.)—WHY, Jack Van Deman, Long Branch, N. J.
91 cubic inch (St. Petersburg, Fla.)—RED WITCH, Jack Van Deman
135 cubic inch (Dubuque, Iowa)—ETHYL XX, Sam Owen, Berwin, Ill.
225 Class, Div. I (Louisville, Ky.)—Z-Z-Zip, Sid Street, Kansas City, Mo.
225 Class, Div. II (Long Beach, Calif.)—FIREFLY, Elmer Enquist, Petaluma, Calif.
Pacific One-Design (near Baltimore)—CHERUB II, Dr. L. J. Novotny, Los Angeles
7 litre (New Martinsville, W. Va.)—HELEN M., Fred Sutton, Jr., Kinston, N. C.

RUNABOUTS

48 cubic inch (St. Petersburg)—YANKEE BOY, Robert McAllister, Ventnor, N. J.
Cracker Box Class (Long Beach, Calif.)—CREAM PUFF TOO, Ed Olsen, Long Beach

OTHER MOTORBOATING CHAMPIONS, 1951 (CONT.)

RUNABOUTS (CONT.)

Class B (Cambridge, Md.)—AVA LOU II, Ed Townsend, Secretary, Md.
Class D (Buffalo, N. Y.)—SOUR PUSS, Ed Endres, Grand Island, N. Y.
Class E (Buffalo, N. Y.)—DOT-E, Al Endres, Grand Island, N. Y.

Outboard Hydroplane Champions

(Near Knoxville, Tenn., Sept. 15–17)

Class A—Gilbert Peterman, Malverne, N. Y.
Class B—Gerald Miller, Lawrenceville, Ill.
Class C—Jack Maypole, Oak Park, Ill.
Class F—Harry Vogts, Madison, Wis.
Class M—Charles Winslow, Orlando, Fla.

SERVICE HYDROPLANE

Class C—David Livingston, Lake Village, Ark.

RUNABOUTS

Class C Racing—David Livingston
Class C Service—David Livingston

STOCK UTILITY OUTBOARDS

Although these championships were contested near Knoxville on Sept. 8–10, the results are being held in abeyance until the American Power Boat Association's Council meets early in 1952 to rule on certain protests and disqualifications.

DISTANCE RACE YACHT WINNERS

Newport to Annapolis—BARUNA, yawl, Henry C. Taylor, New York.
Miami to Nassau—REVONOC, Harvey Conover, New York.
Fastnet Race (England)—CIRCE, yawl, C. Hardeberg, Sweden.
Chicago to Mackinac Island—GALE, sloop, Harry G. Nye Jr., Chicago.
Marblehead to Halifax—CARINA, yawl, Richard Nye.
Los Angeles to Honolulu—SEA WITCH, ketch, A. L. McCormick, San Francisco.
St. Petersburg to Havana—CARIBBEE, yawl, Carleton Mitchell, Annapolis, Md.
Havana to San Sebastian, Spain—MALABAR XIII, Ken Jewett, Miami, Fla.

MOTORCYCLING

Winners of National Championships in 1951

Source: American Motorcycle Association and *American Motorcycling* magazine.

Event and where held	Winner and home city	Machine	Time
Road Racing			
100 Miles (Laconia, N. H.)	Dick Klamfoth, Groveport, Ohio	Norton	1:57:54.00
200 Miles (Datona Beach, Fla.)	Dick Klamfoth, Groveport, Ohio	Norton	2:09:15.71
Dirt Track Racing			
HALF-MILE TRACKS			
5 Miles (Des Moines, Iowa)	Lowell Rettinger, Indianapolis	Harley-Davidson	5:01.26
7 Miles (Shreveport, La.)	Dick Klamfoth, Groveport, Ohio	Norton	6:28.02
8 Miles (Williams Grove, Pa.)	Ernie Beckman, Battle Creek, Mich.	Indian	8:11.96
10 Miles (Richmond, Va.)	Dick Klamfoth, Groveport, Ohio	Norton	9:12.66
MILE TRACKS			
15 Miles (Milwaukee)	Bobby Hill, Columbus, Ohio	Indian	10:39.81
20 Miles (San Mateo, Calif.)	Kenny Eggers, San Jose, Calif.	Harley-Davidson	14:57.35
25 Miles (Springfield, Ill.)	Bobby Hill, Columbus, Ohio	Indian	16:58.71
Speedway Racing			
MILE TRACK			
100 Miles (Langhorne, Pa.)	Billy Huber, Reading, Pa.	Harley-Davidson	66:17.30
Tourist Trophy Racing			
HALF-MILE COURSE—7 MILES			
45 cubic inch (Peoria, Ill.)	Jimmy Phillips, So. Pasadena, Calif.	Triumph	7:33.48
80 cubic inch (Peoria, Ill.)	Jimmy Phillips, So. Pasadena, Calif.	Triumph	7:35.55
Class A Hill Climb			
(All events at Muskegon, Mich.)			
45 cubic inch, Class B	Larry Sutter, Muskegon Heights, Mich.	Harley-Davidson	9.50
74 cubic inch, Class A	Willard Bryan, Groveport, Ohio	Harley-Davidson	8.68
45 cubic inch, Class B final	Louis Corriere, Easton, Pa.	Harley-Davidson	10.60
74 cubic inch, Expert final	Pete Uebelacker, Rochester, N. Y.	Indian	8.49
Endurance Run			
500 Miles (Lansing, Mich.)	Joe Gee, Columbus, Ohio	Triumph	....
Cross-Country Run			
150 Miles (Los Angeles)	Aub LeBard, La Habra, Calif.	BSA	....

Gonzales Wins Speed Test

Richard (Pancho) Gonzales, competing in a special electronically measured contest at St. Joseph's College, Philadelphia, drove a tennis ball 112.88 miles an hour. Jack Kramer was second with 107.8.

Fordham Wins Swim Meet

Fordham, with 83 points, captured the 1951 Metropolitan College Swimming Association team championship. New York University, the host school, was second with 57 tallies.

HARNESS RACING

OLIVER WENDELL HOLMES, the famous Autocrat of the Breakfast Table, wrote that the running horse was a gambling toy but the trotting horse was useful and, furthermore, "horse-racing is not a republican institution; horse-trotting is." Oliver Wendell Holmes was a born and bred New Englander and New England was the nursery of the harness racing sport in America. Pacers and trotters were matters of local pride and prejudice in Colonial New England and, shortly after the Revolution, the Messenger and Justin Morgan strains produced many winners in harness racing "matches" along the turnpikes of New York, Connecticut, Rhode Island, Massachusetts, Vermont and New Hampshire.

There was English thoroughbred blood in Messenger and Justin Morgan and, many years later, it was blended in Rysdyk's Hambletonian, foaled in 1849. Hambletonian was not particularly fast under harness but his descendants have had almost a monopoly of prizes, titles and records in the harness racing game. Hambletonian was purchased as a foal with its dam for a total of $124 by William Rysdyk of Goshen, N. Y. and made a modest fortune for the purchaser.

Trotters and pacers often were raced under saddle in the old days and, in fact, the custom still survives in some places in Europe. Dexter, the great trotter that lowered the mile record from 2:19¾ to 2:17¼ in 1867, was said to handle just as well under saddle as when pulling a sulky. But as sulkies were lightened in weight and improved in design, trotting under saddle became less common and finally faded out in this country.

Hambletonian Winners

Goshen, N. Y.

(Three-year-old trotters—1 mile)

Run at Syracuse, N. Y., in 1926 and 1928; run at Lexington, Ky., in 1927 and 1929; run at Empire City Race Track, Yonkers, N. Y., in 1943.

Year	Winner	Driver	Best time	Value
1926	Guy McKinney	Nat Ray	2.04 3/4	$73,451.32
1927	Iosola's Worthy	Marvin Childs	2.03 3/4	54,694.44
1928	Spencer	W. H. Leese	2.02 1/2	66,226.25
1929	Walter Dear	W. R. Cox	2.02 3/4	60,309.60
1930	Hanover's Bertha	Tom Berry	2.03	56,859.84
1931	Calumet Butler	R. McMahon	2.03 1/4	50,921.39
1932	The Marchioness	W. Caton	2.01 1/4	49,489.26
1933	Mary Reynolds	Ben White	2.03 3/4	40,459.88
1934	Lord Jim	H. M. Parshall	2.02 3/4	25,845.44
1935	Greyhound	Sep Palin	2.02 1/4	33,321.00
1936	Rosalind	Ben White	2.01 3/4	35,643.83
1937	Shirley Hanover	H. Thomas	2.01 1/2	37,912.58
1938	McLin Hanover	H. Thomas	2.02 1/4	37,962.37
1939	Peter Astra	H. M. Parshall	2.04 1/4	40,502.46
1940	Spencer Scott	F. Egan	2.02	43,685.45
1941	Bill Gallon	Lee Smith	2.05	38,729.86
1942	The Ambassador	Ben White	2.04	38,954.38
1943	Volo Song	Ben White	2.02 1/2	42,298.03
1944	Yankee Maid	H. Thomas	2.04	33,577.12
1945	Titan Hanover	H. Pownall	2.04	50,196.96
1946	Chestertown	Tom Berry	2.02 1/2	50,995.57
1947	Hoot Mon	Sep Palin	2.00	45,417.93
1948	Demon Hanover	H. R. Hoyt	2.02	59,091.18
1949	Miss Tilly	Fred Egan	2.01 2/5	68,395.26
1950	Lusty Song	Del Miller	2.02	75,209.12

SUMMARY OF 1951 HAMBLETONIAN

Horse	Driver	Heats 1st	Heats 2d
Mainliner	Guy Crippen	1	1
aSpennib	Fay Fitzpatrick	2	1)
bScotch Rhythm	Ralph Baldwin	19	2
*Candy Man	Harry and James Fitzpatrick	12	3
cYankee Hanover	Frank Ervin	3	19
dBernie Hanover	John Simpson	4	13
eSugar Candy	Jake Rodman	17	4
Great Hanover	Harry Whitney	8	5
eTrue Boy	Gib White	5	12
aMighty Fine	Benny Schue	7	6
fWatcha	William Haughton	6	9
dDarnella	James Jordan	10	7
fBetsy Volo	Del Miller	21	8
*Scotlane	J. Warren Holmes	9	15
Mahlon Hanover	Joe O'Brien	11	11
*Merritt Hanover	Dana Cameron	13	18
*Overture	Art Shaw	14	14
*Lou Darnley	Lou James	15	16
bPrince Colby	Clint Hodgins	16	21
cIrish Sweetheart	Henry Clukey	18	17
*Kashaplenty	Henry Pownall	20	20

* Field. aHayes Fair Acres entry. bTwo Gaits Farm entry. cF. Ervin Stable entry. dJ. Simpson Stable entry. eGibson White Stable entry. fDel Miller Stable entry.

Times—2.02 3/5, 2.04 3/5. Winner—Brown colt by Worthy Boy-Sister Mary. Owner—Ralph H. Kroening, Milwaukee.

Purse distribution—Mainliner, $51,347.26; Spennib, $18,671.73; Scotch Rhythm, $11,203.04; Candy Man, $5,601.52; Yankee Hanover, $3,734.35; Bernie Hanover, $2,800.75; breeder's award, $1,905.28. Total purse—$95,263.93. Attendance—15,000.

WORLD HARNESS RACING RECORDS

(This compilation recognizes as record-holders those horses which have made the fastest time at their gait, age, and hitch, either against time or in a race at one mile.)

Trotting on Mile Track

	Time	Driver	Date	Where made
All-age—Greyhound	1.55¼	S. F. Palin	Sept. 29, 1938	Lexington, Ky.
Yearling—Airdale	2.15¾	H. C. Moody	Oct. 2, 1912	Lexington, Ky.
2-year-old—Titan Hanover	2.00	Harry Pownall	Oct. 4, 1944	Lexington, Ky.
3-year-old—Titan Hanover	1.58	Harry Pownall	Sept. 7, 1945	DuQuoin, Ill.
4-year-old—Greyhound	1.57½ (r)	S. F. Palin	Aug. 21, 1936	Springfield, Ill.
4-year-old—Spencer Scott	1.57¼	Fred Egan	Sept. 24, 1941	Lexington, Ky.
Lady driver—Dean Hanover	1.58½	Alma Sheppard	Sept. 24, 1937	Lexington, Ky.
To Wagon—Lou Dillon	2.00	C. K. G. Billings	Aug. 24, 1903	Readville, Mass.
To Wagon—Uhlan	2.00	C. K. G. Billings	Aug. 7, 1911	North Randall, Ohio
Team to Pole—Greyhound and Rosalind	1.58¼	S. F. Palin	Sept. 5, 1939	Indianapolis, Ind.
Team, Three Abreast—Calumet Dubuque, Mac Aubrey, Hollyrood Boris	2.10¼	T. F. Walsh	Aug. 14, 1937	Goshen, N. Y.
Team, Tandem—John R. McElwyn and Hollyrood Harrier	2.19¼	T. F. Walsh	Sept. 7, 1936	Rutland, Vt.
Four-in-Hand—Damiana, Belnut, Maud V., Nutspra	2.30	Not recorded	July 4, 1896	Chicago, Ill.
Under Saddle—Greyhound	2.01¾	Mrs. F. D. Johnson	Sept. 27, 1940	Lexington, Ky.
With Running Mate—Uhlan	1.54½	Chas. Tanner	Oct. 9, 1913	Lexington, Ky.

(r) Record made in race.

Trotting on Half-mile Track

	Time	Driver	Date	Where made
All-age—Greyhound	1.59¾	S. F. Palin	July 16, 1937	Goshen, N. Y.
Yearling—U. Forbes	2.21½	H. C. Moody	Sept. 18, 1913	Louisville, Ky.
2-year-old—Titan Hanover	2.03½ (r)	Harry Pownall	Sept. 19, 1944	Delaware, Ohio
3-year-old—Titan Hanover	2.01¾	Harry Pownall	Sept. 18, 1945	Delaware, Ohio
4-year-old—Star's Pride	2.00⅘ (r)	Harry Pownall	July 13, 1951	Saratoga Spgs, N. Y.
To Wagon—Sweet Marie	2.08½	W. J. Andrews	Sept. 21, 1907	Allentown, Pa.
Team to Pole—Calumet Dubuque and Hollyrood Boris	2.06¾	T. F. Walsh	Aug. 19, 1937	Skowhegan, Me.
Team, Three Abreast—David Thornton, Hollyrood Boris, Capital Stock	2.22½	T. F. Walsh	July 2, 1937	Gorham, Maine
Under Saddle—Hollyrood Boris	2.09	Helen James	Sept. 17, 1936	Brockton, Mass.

(r) Record made in race.

Pacing on Mile Track

	Time	Driver	Date	Where made
All-age—Billy Direct	1.55	Vic Fleming	Sept. 28, 1938	Lexington, Ky.
Yearling—Royal Lady 2nd	2.14¾	O. M. Powell	Oct. 20, 1939	Indianapolis, Ind.
2-year-old—Knight Dream	2.00⅘ (r)	F. E. Safford	Oct. 2, 1947	Lexington, Ky.
3-year-old—Solicitor	1.57⅗	Delvin Miller	Oct. 1, 1951	Lexington, Ky.
3-year-old—Tar Heel	1.57⅗	Delvin Miller	Oct. 2, 1951	Lexington, Ky.
4-year-old—Billy Direct	1.55	Vic Fleming	Sept. 28, 1938	Lexington, Ky.
Lady Driver—Highland Scott	1.59¼	Mrs. E. R. Harriman	Aug. 22, 1929	Goshen, N. Y.
To Wagon—Dan Patch	1.57¼ (w)	M. E. McHenry	Oct. 27, 1903	Memphis, Tenn.
Team to Pole—Minor Heir and George Gano	2.02	E. J. McCarr	Oct. 1, 1912	Columbus, Ohio
Under Saddle—George Gano	2.10¾	M. Anderson	Sept. 2, 1915	Madison, Wis.
With Running Mate—Flying Jib	1.58¼	A. McDowell	Oct. 4, 1894	Chillicothe, Ohio

(r) Record made in race. (w) With windshield.

Pacing on Half-mile Track

	Time	Driver	Date	Where made
All-age—Sampson Hanover	1.59⅘ (r)	Frank Ervin	Sept. 19, 1951	Delaware, Ohio
Yearling—Lady Patch	2.18¼	O. M. Powell	1924	*
2-year-old—Adios	2.03¾ (r)	R. L. Parker	Sept. 16, 1942	Carthage, Ohio
3-year-old—Tar Heel	2.00 (r)	Adelbert Cameron	Sept. 20, 1951	Delaware, Ohio
4-year-old—Sampson Hanover	1.59⅘ (r)	Frank Ervin	Sept. 19, 1951	Delaware, Ohio
To Wagon—Dan Patch	2.05 (w)	H. C. Hersey	Sept. 21, 1905	Allentown, Pa.
Team to Pole—Billy Direct and The Widower	2.04¼	Chas. Fleming	Oct. 12, 1939	Altamont, N. Y.
Under Saddle—Zombro Hanover	2.06¾	J. Weipert	Sept. 21, 1935	Newark, N. J.

* Data unavailable. (r) Record made in race. (w) With windshield.

1951 HARNESS RACING CHAMPIONS

TROTTERS
(Based on performances at one mile)

Mile Track

	Best time
Aged—Pronto Don	2:02
4-year-old—Star's Pride	1:59
3-year-old—Scotch Rhythm	2:02 2/5
2-year-old—Duke of Lullwater	2:03 4/5

Half-Mile Track

Aged—Pronto Don	2:02
4-year-old—Star's Pride	2:00 3/5
3-year-old—Ford Hanover	2:04 3/5
2-year-old—Hardy Hanover	2:05

PACERS
(Based on performances at one mile)

Mile Track

	Best time
Aged—Good Time	1:57 4/5
4-year-old—Sampson Hanover	1:56 4/5
3-year-olds—Tar Heel and Solicitor	1:57 2/5
2-year-old—Meadow Rice	2:02

Half-Mile Track

Aged—Prince Jay	2:00 2/5
4-year-old—Sampson Hanover	1:59 3/5
3-year-old—Tar Heel	2:00
2-year-old—Royal Mist	2:05

STAKE WINNERS IN 1951

Trotting

AGED

	Best time	Value
American Championship—Demon Hanover	2:03 1/5	$25,000
Gotham Trot—Pronto Don	3:12 1/5	25,000
Roosevelt 2-Mile—Pronto Don	4:10 4/5	50,000

3-YEAR-OLDS

American National—Spennib	2:04	19,071
Bloomsburg Futurity—Tag Me	2:08 4/5	12,576
Championship Stallion—Hattie Song	2:03 2/5	14,347
Coaching Club Oaks—Betsy Volo	2:06 3/5	17,912
Hambletonian—Mainliner	2:03 3/5	95,261
Hanover Filly—Neola Hanover	2:11 3/5	14,187
Horseman Futurity—Scotch Rhythm	2:04 4/5	23,635
Kentucky Futurity—Ford Hanover	2:01 2/5	63,020
Reading Futurity—Tag Me	2:06 1/5	13,463
Review Futurity—Spennib	2:02 2/5	17,139

2-YEAR-OLDS

American National—Duke of Lullwater	2:06	16,017
Bloomsburg Futurity—Hardy Hanover	2:11	12,317
Castleton Farm—Duke of Lullwater	2:04 2/5	32,120
Greyhound—Duke of Lullwater	2:04 3/5	21,840
Hanover Filly—Kimberley Mine	2:04 3/5	16,041
Horseman Stake—Duke of Lullwater	2:03 4/5	35,116
Reading Futurity—Duke of Lullwater	2:06 1/5	14,153
Reynolds Stake—Theme Song	2:12 4/5	11,092

Pacing

AGED

	Best time	Value
Nassau 2-Mile—Scottish Pence	4:13 2/5	$50,000
National Derby—Prince Jay	2:04 1/5	25,000
Yonkers Derby—Scottish Pence	3:17 2/5	25,000

3-YEAR-OLDS

American National—Tar Heel	2:02	12,828
Bloomsburg Futurity—Solicitor	2:04 2/5	11,726
Championship Stallion—H. D. Hanover	2:03 3/5	8,883
Geers Stake—Tar Heel	2:01	7,495
Hanover Filly—Meda Volo	2:00 3/5	12,634
Horseman Futurity—Floating Dream	2:01	15,385
Little Brown Jug—Tar Heel	2:00	66,281
Reading Futurity—Chuck Volo	2:03 4/5	12,063
Review Futurity—Tar Heel	1:59 4/5	11,509
Village Farm—Stanton Hal	2:04	9,000

2-YEAR-OLDS

American National—Gander	2:04	12,609
Bloomsburg Futurity—Brave Scott	2:08 1/5	11,967
Fox—Thunderclap	2:04 4/5	34,080
Geers—Meadow Rice	2:04	15,605
Hanover Filly—Silent Waters	2:03	15,179
Little Pat—Thunderclap	2:02 1/5	19,515
McMahon Memorial—Gander	2:03	30,969
Reading Futurity—Meadow Rice	2:06 3/5	16,553
Reynolds Stake—Voting Trust	2:07 4/5	10,592
Village Farm—Vonian Chief	2:07 1/5	16,690

WORLD RECORDS MADE IN 1951

Trotting

Distance	Track	Made by	Place	Date	Time
1½ mi.	half-mile	Star's Pride	Westbury, N. Y.	June 29	3:06 1/5
1 mi.	half-mile	Star's Pride	Saratoga Springs, N. Y.	July 13	2:00 3/5
2 mi.	half-mile	Pronto Don	Westbury, N. Y.	Sept. 13	4:10 4/5

Pacing

1½ mi.	half-mile	Scottish Pence	Westbury, N. Y.	July 25	3:06
1 mi.	half-mile	Royal Mist	Harrington, Del.	July 25	2:05
2 mi.	half-mile	Scottish Pence	Westbury, N. Y.	Aug. 2	4:13 2/5
1 mi.	mile	Star Volo	Indianapolis	Sept. 1	2:04
1 mi.	half-mile	Ferman Hanover	Westbury, N. Y.	Sept. 8	2:02
1 mi.	half-mile	Sampson Hanover	Delaware, Ohio	Sept. 19	1:59 3/5
1 mi.	half-mile	Tar Heel	Delaware, Ohio	Sept. 20	2:00
1 mi.	half-mile	Prince Jay	Delaware, Ohio	Sept. 20	2:00 2/5
1 mi.	mile	Solicitor	Lexington, Ky.	Oct. 1	1:57 2/5
1 mi.	mile	Buckeye Grattan	Lexington, Ky.	Oct. 2	2:03
1 mi.	mile	Tar Heel	Lexington, Ky.	Oct. 2	1:57 2/5
1 mi.	mile	Tassel Hanover	Lexington, Ky.	Oct. 2	1:58 2/5
1 mi.	mile	Prince Jay	Lexington, Ky.	Oct. 2	1:58 3/5
1 mi.	mile	Good Time	Lexington, Ky.	Oct. 5	1:57 4/5

Verhursts Retire Proximity

Proximity, harness racing's all-time leading money-winner was retired in 1951 by her owners Ralph and Gordon Verhurst of Victor, N. Y. The 9-year-old mare, a trotter, earned $252,929.

HORSE RACING

ANCIENT DRAWINGS on stone and bone prove that horse racing is at least 3000 years old, but Thoroughbred Racing is a modern development. Practically every thoroughbred in training today traces its registered ancestry back to one or more of three sires that arrived in England about 1728 from the Near East and became known, from the names of their owners, as the Byerly Turk, the Darley Arabian and the Godolphin Arabian. The Jockey Club (English) was founded at Newmarket in 1750 or 1751 and became the custodian of the Stud Book as well as the court of last resort in deciding turf affairs.

There was horse racing in this country before the Revolution, but the great lift to the breeding industry came with the importation in 1798, by Col. John Hoomes of Virginia, of Diomed, winner of the Epsom Derby of 1780. Diomed's lineal descendants included such famous stars of the American turf as American Eclipse and Lexington. From 1800 to the time of the Civil War there were race courses and breeding establishments plentifully scattered through Virginia, North Carolina, South Carolina, Tennessee, Kentucky and Louisiana. In fact, thoroughbred racing was largely a Southern sport and that was one reason why the Confederacy had such excellent cavalry in the Civil War. A century ago crack horses were matched in four-mile races that were run in heats, best two out of three!

The oldest stake event in North America is the King's Plate, a Canadian fixture that was first run in the Province of Quebec in 1836. The oldest stake event in the United States is The Travers, which was first run at Saratoga in 1864. The gambling that goes with horse racing and trickery by jockeys, trainers, owners and track officials caused attacks on the sport by reformers and a demand among horse racing enthusiasts for an honest and effective control of some kind, but nothing of lasting value to racing came of this until the formation of The Jockey Club in 1894. The Jockey Club, composed of fifty members chosen from the aristocracy of the turf, was all-powerful in racing regulation until the State Racing Commissions came into being as a result of mutuel betting and the great revenues that came with the tax on the "daily handle."

Horse Racing Statistics

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HISTORY OF TRADITIONAL STAKES

AMERICAN DERBY

Washington Park; 3-year-olds; 1¼ miles.

Run at old Washington Park, Chicago, through 1904; run at Hawthorne in 1916; run at Arlington Park in 1928. Distance 1 1/2 miles until 1928.

Year	Winner	Jockey	Wt.	Win val.
1884	Modesty	I. Murphy	117	$10,700
1885	Volante	I. Murphy	123	9,570
1886	Silver Cloud	I. Murphy	121	8,160
1887	C. H. Todd	Hamilton	118	13,690
1888	Emperor of Norfolk	I. Murphy	123	14,340
1889	Spokane	T. Kiley	121	15,400
1890	Uncle Bob	T. Kiley	115½	15,260
1891	Strathmeath	Covington	112	18,610
1892	Carlsbad	R. Williams	122	16,930
1893	Boundless	E. Garrison	122	49,500
1894	Rey el S'ta A'ta	E. Van Kuren	122	19,750
1898	Pink Coat	W. Martin	127	9,225
1900	Sidney Lucas	J. Bullman	122	9,425
1901	Robert Waddell	J. Bullman	119	19,275
1902	Wyeth	L. Lyne	122	19,875
1903	The Picket	Helgesen	115	27,025
1904	Highball	G. C. Fuller	122	26,325
1915	Dodge	F. Murphy	126	6,850
1926	Boot to Boot	A. Johnson	121	89,000
1927	Hydromel	L. McDermott	116	22,750
1928	Toro	E. Ambrose	126	21,920
1929	Windy City	L. McDermott	118	$47,550
1930	Reveille Boy	W. Fronk	118	51,200
1931	Mate	G. Ellis	126	48,670
1932	Gusto	S. Coucci	118	48,205
1933	Mr. Khayyam	P. Walls	121	23,410
1934	Cavalcade	M. Garner	126	23,315
1935	Black Helen	D. Meade	118	25,020
1937	Dawn Play	L. Balaski	116	25,400
1940	Mioland	J. Adams	123	44,900
1941	Whirlaway	A. Robertson	126	44,970
1942	Alsab	G. Woolf	126	60,855
1943	Askmenow	G. Woolf	115	55,150
1944	By Jimminy	G. Woolf	122	61,650
1945	Fighting Step	G. South	118	68,950
1946	Eternal Reward	R. Campbell	118	83,455
1947	Fervent	D. Dodson	118	70,950
1948	Citation	E. Arcaro	126	66,450
1949	Ponder	S. Brooks	126	66,150
1950	Hill Prince	E. Arcaro	126	60,050
1951	Hall of Fame	T. Atkinson	122	61,200

ARLINGTON FUTURITY

Arlington Park; 2-year-olds; ¾ mile.

American National Futurity in 1927 and 1928. Run at Washington Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.
1927	Misstep	E. Pool	122	$ 9,360
1928	Double Heart	L. Geving	115	21,920
1932	Ladysman	R. Jones	117	38,010
1933	Far Star	D. Bellizzi	116	31,020
1934	Toro Nancy	R. Jones	112	41,725
1935	Grand Slam	J. Bryson	122	45,135
1936	Case Ace	A. Robertson	117	36,540
1937*	Tiger	A. Robertson	122	.....
	Teddy's Comet	G. Smith	117	18,000
1938	Thingumabob	E. Arcaro	117	31,110
1939	Andy K.	J. E. Oros	114	33,735
1940	Swain	J. Adams	117	$34,470
1941	Sun Again	W. Eads	122	34,655
1942	Occupation	L. Balaski	117	51,500
1943	Jezrahel	O. Grohs	116	48,650
1944	Free for All	O. Grohs	122	48,525
1945	Spy Song	S. Brooks	122	58,650
1946	Cosmic Bomb	S. Clark	122	66,875
1947	Piet	Dell Jessop	122	66,900
1948	Mr. Busher	F. Zufelt	122	62,725
1949	Wisconsin Boy	J. Chestnut	122	60,075
1950	To Market	A. Rivera	122	56,215
1951	Hill Gail	S. Brooks	122	64,140

* Dead Heat.

BELMONT STAKES

Belmont Park; 3-year-olds; 1¼ miles.

Run at Jerome Park prior to 1890; run at Morris Park from 1890 to 1905. Distance 1⅝ miles prior to 1874; reduced to 1½ miles, 1874; reduced to 1¼ miles, 1890; changed to 1½ miles, 1893; increased to 1¼ miles, 1895; increased to 1⅜ miles, 1896; changed to 1¼ miles in 1904 and 1905; increased to 1½ miles, 1926.

Year	Winner	Jockey	Wt.	Win val.
1867	Ruthless	J. Gilpatrick	107	$ 1,850
1868	General Duke	R. Swim	110	2,800
1869	Fenian	C. Miller	110	3,350
1870	Kingfisher	W. Dick	110	3,750
1871	Harry Bassett	W. Miller	110	5,450
1872	Joe Daniels	J. Rowe	110	4,500
1873	Springbok	J. Rowe	110	5,200
1874	Saxon	G. Bardee	110	4,200
1875	Calvin	R. Swim	110	4,450
1876	Algerine	W. Donohue	110	3,700
1877	Cloverbrook	C. Holloway	110	5,200
1878	Duke of Magenta	L. Hughes	118	3,850
1879	Spendthrift	S. Evans	118	4,250
1880	Grenada	L. Hughes	118	2,800
1881	Saunterer	T. Costello	118	3,000
1882	Forester	J. McLaughlin	118	2,600
1883	George Kinney	J. McLaughlin	118	3,070
1884	Panique	J. McLaughlin	118	3,150
1885	Tyrant	P. Duffy	118	2,710
1886	Inspector B	J. McLaughlin	118	2,720
1887	Hanover	J. McLaughlin	118	2,900
1888	Sir Dixon	J. McLaughlin	118	3,440
1889	Eric	W. Hayward	118	4,960
1890	Burlington	S. Barnes	118	8,560
1891	Foxford	E. Garrison	118½	5,070
1892	Patron	W. Hayward	122	6,610
1893	Comanche	W. Simms	117	5,310
1894	Henry of Navarre	W. Simms	117	6,680
1895	Belmar	F. Taral	119	2,700
1896	Hastings	H. Griffin	122	3,025
1897	Scottish Chieftain	J. Scherrer	115	3,550
1898	Bowling Brook	F. Littlefield	122	7,810
1899	Jean Bereaud	R. Clawson	122	9,445
1900	Ildrim	N. Turner	126	14,790
1901	Commando	H. Spencer	126	11,595
1902	Masterman	J. Bullman	126	13,220
1903	Africander	J. Bullman	126	12,285
1904	Delhi	G. Odom	126	11,575
1905	Tanya	E. Hildebrand	121	17,240
1906	Burgomaster	L. Lyne	126	22,700
1907	Peter Pan	G. Mountain	126	22,765
1908	Colin	J. Notter	126	22,765
1909	Joe Madden	E. Dugan	126	$24,550
1910	Sweep	J. Butwell	126	9,700
1913	Prince Eugene	R. Troxler	109	2,825
1914	Luke McLuke	M. Buxton	126	3,025
1915	The Finn	G. Byrne	126	1,825
1916	Friar Rock	E. Haynes	126	4,100
1917	Hourless	J. Butwell	126	5,800
1918	Johren	F. Robinson	126	8,950
1919	Sir Barton	J. Loftus	126	11,950
1920	Man o' War	C. Kummer	126	7,950
1921	Grey Lag	E. Sande	126	8,650
1922	Pillory	C. H. Miller	126	39,200
1923	Zev	E. Sande	126	38,000
1924	Mad Play	E. Sande	126	42,880
1925	American Flag	A. Johnson	126	38,550
1926	Crusader	A. Johnson	126	48,550
1927	Chance Shot	E. Sande	126	60,910
1928	Vito	C. Kummer	126	63,430
1929	Blue Larkspur	M. Garner	126	59,650
1930	Gallant Fox	E. Sande	126	66,040
1931	Twenty Grand	C. Kurtsinger	126	58,770
1932	Faireno	T. Malley	126	55,120
1933	Hurrryoff	M. Garner	126	49,490
1934	Peace Chance	W. D. Wright	126	43,410
1935	Omaha	W. Saunders	126	35,480
1936	Granville	J. Stout	126	29,800
1937	War Admiral	C. Kurtsinger	126	38,020
1938	Pasteurized	J. Stout	126	34,530
1939	Johnstown	J. Stout	126	37,020
1940	Bimelech	F. A. Smith	126	35,030
1941	Whirlaway	E. Arcaro	126	39,770
1942	Shut Out	E. Arcaro	126	44,520
1943	Count Fleet	J. Longden	126	35,340
1944	Bounding Home	G. L. Smith	126	55,000
1945	Pavot	E. Arcaro	126	52,675
1946	Assault	W. Mehrtens	126	75,400
1947	Phalanx	R. Donoso	126	78,900
1948	Citation	E. Arcaro	126	77,700
1949	Capot	T. Atkinson	126	60,900
1950	Middleground	W. Boland	126	61,350
1951	Counterpoint	D. Gorman	126	82,000

"TRIPLE CROWN" WINNERS IN THE UNITED STATES

(Kentucky Derby, Preakness and Belmont Stakes)

Year	Horse	Owner
1919	Sir Barton	J. K. L. Ross
1930	Gallant Fox	William Woodward
1935	Omaha	William Woodward
1937	War Admiral	Samuel D. Riddle
1941	Whirlaway	Warren Wright
1943	Count Fleet	Mrs. John Hertz
1946	Assault	Robert J. Kleberg
1948	Citation	Warren Wright

BROOKLYN HANDICAP

Aqueduct; 3-year-olds and over; 1¼ miles.

Run at Belmont Park in 1913 and at Gravesend prior to 1911. Distance 1⅛ miles from 1915 to 1939, inclusive.

Year	Winner, age	Jockey	Wt.	Win val.
1887	Dry Monopole (4)	A. McCarthy	106	$ 5,850
1888	The Bard (5)	W. Hayward	125	6,925
1889	Exile (7)	A. Hamilton	116	6,900
1890	Castaway II, (4)	W. Bunn	100	6,900
1891	Tenny (5)	Barnes	128	14,800
1892	Judge Morrow (5)	A. Covington	116	17,750
1893	Diablo (7)	F. Taral	112	17,750
1894	Dr. Rice (4)	F. Taral	112	17,750
1895	Hornpipe (4)	A. Hamilton	105	7,750
1896	Sir Walter (6)	F. Taral	113	7,750
1897	Howard Mann (4)	H. Martin	106	7,750
1898	Ornament (4)	T. Sloan	127	7,800
1899	Banastar (4)	D. Maher	110	7,800
1900	Kinley Mack (4)	P. McCue	122	7,800
1901	Conroy (3)	W. O'Connor	102½	7,800
1902	Reina (4)	W. O'Connor	104	7,800
1903	Irish Lad (3)	F. O'Neill	103	14,950
1904	The Picket (4)	E. Helgesen	119	15,800
1905	Delhi (4)	T. Burns	124	15,800
1906	Tokalon (5)	W. Bedell	108	15,800
1907	Superman (3)	W. Miller	99	15,800
1908	Celt (3)	J. Notter	106	19,750
1909	King James (4)	E. Dugan	126	3,850
1910	Fitz Herbert (4)	E. Dugan	130	4,800
1913	Whisk Broom II, (6)	J. Notter	130	3,125
1914	Buckhorn (5)	J. McCahey	113	3,350
1915	Tartar (5)	J. McTaggart	103	3,850
1916	Friar Rock (3)	E. Haynes	108	3,850
1917	Borrow (9)	W. Knapp	117	4,850
1918	Cudgel (4)	L. Lyke	129	4,850
1919	Eternal (3)	A. Schuttinger	105	4,850
1920	Cirrus (4)	L. Ensor	108	5,850
1921	Grey Lag (3)	L. Fator	112	7,600
1922	Exterminator (7)	A. Johnson	135	7,600
1923	Little Chief (4)	E. Sande	114	7,600
1924	Hephaistos (5)	J. Maiben	106	7,600
1925	Mad Play (4)	L. Fator	123	7,600
1926	Single Foot (4)	C. Turner	110	11,950
1927	Peanuts (5)	H. Thurber	112	13,150
1928	Black Panther (4)	J. Maiben	105	13,750
1929	Light Carbine (6)	G. Rose	97	14,300
1930	Sortie (5)	P. Walls	111	10,800
1931	Questionnaire (4)	R. Workman	127	13,900
1932	Blenheim (4)	H. Mills	109	9,800
1933	Dark Secret (4)	H. Mills	115	3,380
1934	Discovery (3)	J. Bejshak	113	2,925
1935	Discovery (4)	J. Bejshak	123	10,200
1936	Discovery (5)	L. Fallon	136	10,575
1937	Seabiscuit (4)	J. Pollard	122	18,025
1938	The Chief (3)	J. Longden	105	18,450
1939	Cravat (4)	B. James	126	18,250
1940	Isolater (7)	J. Stout	119	16,900
1941	Fenelon (4)	J. Stout	119	19,250
1942	Whirlaway (4)	G. Woolf	128	23,650
1943	Devil Diver (4)	S. Brooks	123	23,200
1944	Four Freedoms (4)	E. Arcaro	116	39,720
1945	Stymie (4)	R. Permane	116	39,120
1946	Gallorette (4)	J. Jessop	118	41,100
1947	Assault (4)	E. Arcaro	133	38,100
1948	Conniver (4)	T. Atkinson	114	39,300
1949	Assault (6)	D. Gorman	122	40,600
1950	My Request (5)	T. Atkinson	119	41,000
1951	Palestinian (5)	S. Boulmetis	122	39,000

BUTLER HANDICAP

Empire City; 3-year-olds and over; 1 3/16 miles.

Distance 1⅛ miles in 1935. Run at Jamaica since 1943.

Year	Winner, age	Jockey	Wt.	Win val.
1935	Discovery (4)	J. Bejshak	132	$11,675
1936	Good Gamble (4)	L. Fallon	119	9,975
1937	Seabiscuit (4)	J. Pollard	126	18,025
1938	Esposa (6)	N. Wall	114	19,400
1939	Lovely Night (3)	N. Wall	104	16,950
1940	Can't Wait (5)	B. James	111	21,000
1941	Foxbrough (5)	J. Stout	118	19,800
1942	Tola Rose (5)	W. Mehrtens	103	22,800
1943	Thumbs Up (4)	O. Grohs	116	23,300
1944	First Fiddle (5)	J. Longden	126	$38,225
1945	Stymie (4)	R. Permane	121	38,770
1946	Lucky Draw (5)	H. Woodhouse	105	39,900
1947	Assault (4)	E. Arcaro	135	36,700
1948	Donor (4)	R. Permane	117	58,850
1949	Conniver (5)	A. Kirkland	112	40,300
1950	Loser Weeper (5)	E. Guerin	118	40,700
1951	Oil Capitol (4)	L. C .Cook	108	42,600

CLASSIC STAKES

Arlington Park; 3-year-olds; 1¼ miles.

Run at Washington Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.
1929	Blue Larkspur	M. Garner	126	$59,900
1930	Gallant Fox	E. Sande	126	64,750
1931	Mate	A. Robertson	126	73,650
1932	Gusto	S. Coucci	126	76,600
1933	Inlander	R. Jones	118	32,755
1934	Cavalcade	M. Garner	126	30,325
1935	Omaha	W. D. Wright	126	28,975
1936	Granville	J. Stout	126	28,400
1937	Flying Scot	J. Gilbert	123	27,375
1938	Nedayr	W. D. Wright	121	27,500
1939	Challedon	H. Richards	126	35,600
1940	Sirocco	G. Woolf	121	37,935
1941	Attention	C. Bierman	121	42,450
1942	Shut Out	E. Arcaro	126	69,700
1943	Slide Rule	F. Zufelt	120	53,450
1944	Twilight Tear	L. Haas	114	62,050
1945	Pot o' Luck	D. Dodson	119	67,150
1946	The Dude	M. Duhon	119	76,850
1947	But Why Not	W. Mehrtens	117	71,500
1948	Papa Redbird	R. L. Baird	122	66,600
1949	Ponder	S. Brooks	126	65,450
1950	Greek Song	O. Scurlock	120	58,950
1951	Hall of Fame	T. Atkinson	120	62,975

EPSOM DERBY

Epsom Downs, England; 3-year-olds; 1 mile, 885 yards.

Distance one mile prior to 1784. Distance 1½ miles since 1939. Run at Newmarket from 1915 to 1918, inclusive and from 1940 to 1945, inclusive, and called the New Derby Stakes.

Year	Winner	Owner	Win val.
1780	Diomed	Sir C. Bunbury	$ 5,620
1781	Y. Eclipse	Mr. O'Kelly	6,255
1782	Assassin	Lord Egremont	5,500
1783	Saltram	Mr. Parker	5,000
1784	Sergeant	Mr. O'Kelly	5,125
1785	Aimwell	Lord Clermont	4,375
1786	Noble	Mr. Panton	5,000
1787	Sir P. Teazle	Lord Derby	4,500
1788	Sir Thomas	Prince of Wales	4,625
1789	Skyscraper	Duke of Bedford	4,652
1790	Rhadamanthus	Lord Grosvenor	4,750
1791	Eager	Duke of Bedford	4,625
1792	John Bull	Lord Grosvenor	4,875
1793	Waxy	Sir F. Poole	6,500
1794	Daedalus	Lord Grosvenor	6,125
1795	Spread Eagle	Sir F. Standish	6,500
1796	Didelot	Sir F. Standish	6,500
1797	Colt by Fidget	Duke of Bedford	5,000
1798	Sir Harry	Mr. Cookson	5,375
1799	Archduke	Sir F. Standish	5,000
1800	Champion	Mr. Wilson	5,250
1801	Eleanor	Sir C. Bunbury	4,375
1802	Tyrant	Duke of Grafton	4,750
1803	Ditto	Sir H. Williamson	4,625
1804	Hannibal	Lord Egremont	4,625
1805	Card. Beaufort	Lord Egremont	6,250
1806	Paris	Lord Foley	5,875
1807	Election	Lord Egremont	5,875
1808	Pan	Sir H. Williamson	5,500
1809	Pope	Duke of Grafton	6,375
1810	Whalebone	Duke of Grafton	6,500
1811	Phantom	Sir J. Shelley	7,500
1812	Octavius	Mr. Ladbrook	7,125
1813	Smolensko	Sir C. Bunbury	7,375
1814	Blucher	Lord Stawell	7,125
1815	Whisker	Duke of Grafton	7,500
1816	Prince Leopold	Duke of York	7,250
1817	Azor	Mr. Payne	8,625
1818	Sam	Mr. Thornhill	8 500
1819	Tiresias	Duke of Portland	8,250
1820	Sailor	Mr. Thornhill	7,875
1821	Gustavus	Mr. Hunter	7,875
1822	Moses	Duke of York	7,625
1823	Emilius	Mr. Udny	8,375
1824	Cedric	Sir J. Shelley	8,875
1825	Middleton	Lord Jersey	9,000
1826	Lap Dog	Lord Egremont	9,000
1827	Mameluke	Lord Jersey	13,500
1828	Cadland	Duke of Rutland	13,000
1829	Frederick	Mr. Gratwicke	12,750
1830	Priam	Mr. Chifney	13,500
1831	Spaniel	Lord Lowther	15,500
1832	St. Giles	Mr. Ridsdale	14,375
1833	Dangerous	Mr. Saddler	17,625
1834	Plenipotentiary	Mr. Batson	17,125
1835	Mundig	Mr. Bowes	16,750
1836	Bay Middleton	Lord Jersey	18,125
1837	Phosphorus	Lord Berner	14,000
1838	Amato	Sir G. Heatcote	18,265
1839	Bloomsbury	Mr. W. Ridsdale	19,500
1840	Little Wonder	Mr. Robertson	19,125
1841	Coronation	Mr. Rawlinson	21,875
1842	Attila	Colonel Anson	24,500
1843	Cotherstone	Mr. Bowes	21,250
1844	Orlando	Colonel Peel	21,750
1845	Merry Monarch	Mr. Gratwick	20,000
1846	Pyrrhus the First	Mr. Gully	26,500
1847	Cossack	Mr. Pedley	$26,500
1848	Surplice	Lord Clifton	28,000
1849	T. Flying Dutchman	Lord Eglinton	31,875
1850	Voltigeur	Lord Zetland	29.375
1851	Teddington	Sir J. Hawley	26,875
1852	Dan. O'Rourke	Mr. Bowes	24,350
1853	W. Australian	Mr. Bowes	26,500
1854	Andover	Mr. Gully	29,250
1855	Wild Dayrell	F. Popham	24,125
1856	Ellington	Admiral Harcourt	28,125
1857	Blink Bonny	W. l'Anson	27,750
1858	Beadsman	Sir J. Hawley	26,615
1859	Musjid	Sir J. Hawley	33,250
1860	Thormanby	Mr. Merry	30,500
1861	Kettledrum	Colonel Towneley	30,500
1862	Caractacus	Mr. Snewing	32,125
1863	Macaroni	R. C. Naylor	34,500
1864	Blair Athol	W. l'Anson	32,500
1865	Gladiateur	C'nt F. deLagrange	34,375
1866	Lord Lyon	R. Sutton	37,750
1867	Hermit	Mr. Chaplin	35,000
1868	Blue Gown	Sir J. Hawley	34,000
1869	Pretender	J. Johnstone	31,125
1870	Kingcraft	Lord Falmouth	38,875
1871	Favonius	B. Rothschild	25,625
1872	Cremorne	H. Savile	24,250
1873	Doncaster	Mr. Merry	24,125
1874	Geo. Frederick	W. S. Cartwright	26,750
1875	Calopin	Prince Batthany	24,750
1876	Kisber	A. Baltazzi	27,875
1877	Silbio	Lord Falmouth	30,250
1878	Sefton	W. S. Crawfurd	29,125
1879	Sir Bevys	Mr. Acton	35,125
1880	Bend Or	D. of Westminster	31,875
1881	Iroquois†	P. Lorillard	29,625
1882	Shotover	D. of Westminster	23,875
1883	St. Blaise	Sir F. Johnstone	25,750
1884*	St. Gatien	J. Hammond	
	Harvester	Sir J. Willoughby	24,500
1885	Melton	Lord Hastings	22,625
1886	Ormonde	D. of Westminster	23,500
1887	Mer. Hampton	Mr. Abington	22,625
1888	Ayrshire	Duke of Portland	18,375
1889	Donovan	Duke of Portland	20,250
1890	Sanfoin	Sir J. Miller	29,700
1891	Common	Sir F. Johnstone	27,550
1892	Sir Hugo	Lord Bradford	34,900
1893	Isinglass	Mr. McCalmont	27,575
1894	Ladas	Lord Rosebery	27,250
1895	Sir Visto	Lord Rosebery	27,250
1896	Persimmon	Prince of Wales	27,250
1897	Galtee More	Mr. Gubbins	27,250
1898	Jeddah	J. Larnach	27,250
1899	Flying Fox	D. of Westminster	27,250
1900	Diamond Jubilee	Prince of Wales	27,250
1901	Volodyovski†	W. C. Whitney	28,350
1902	Ard Patrick	J. Gubbins	27,250
1903	Rock Sand	Sir J. Miller	32,500
1904	St. Amant	L. de Rothschild	32,250
1905	Cicero	Lord Rosebery	32,250
1906	Spearmint	Maj. E. Loder	32,250
1907	Orby†	R. Croker	32,250
1908	Signorinetta	Chev. Ginistrelli	32,250
1909	Minoru	King Edward	32,250
1910	Lemberg	Mr. Fairie	32,250
1911	Sunstar	J. B. Joel	32,250

* Dead heat; stake divided. † American bred or owned.

Epsom Derby (Cont.)

Year	Winner	Owner	Win val.
1912	Tagalie	W. Raphael	32,250
1913	Aboyeur	A P. Cunliffe	32,250
1914	Durbar II†	H. B. Duryea	32,250
1915	Pommern	S. Joel	12,000
1916	Fifinella	E. Hulton	14,500
1917	Gay Crusader	Mr. Fairie	10,250
1918	Gainsborough	Lady Jas. Douglas	20,000
1919	Grand Parade	Lord Glanely	32,250
1920	Spion Kop	Maj. G. Loder	32,250
1921	Humorist	J. B. Joel	32,250
1922	Captain Cuttle	Lord Woolavington	51,250
1923	Papyrus	Ben Irish	56,800
1924	Sansovino	Lord Derby	59,025
1925	Manna	H. E. Morris	55,475
1926	Coronach	Lord Woolavington	51,750
1927	Call Boy	Frank Curzon	63,075
1928	Felstead	Sir H. C'liffe-Owen	58,025
1929	Trigo	W. Barnett	59,825
1930	Blenheim	H. H. Aga Khan	50,180
1931	Cameronian	J. A. Dewar	48,640
1932	April the Fifth	T. Walls	34,056
1933	Hyperion	Lord Derby	49,182
1934	Windsor Lad	H. H M. of Raj'pla	46,760
1935	Bahram	H. H. Aga Khan	46,080
1936	Mahmoud	H. H. Aga Kahn	49,670
1937	Mid-Day Sun	Mrs. G. B. Miller	47,205
1938	Bois Roussel	P. Beatty	43,644
1939	Blue Peter	Lord Rosebery	42,680
1940	Pont l'Eveque	F. Darling	23,803
1941	Owen Tudor	Mrs. M'D'ald-Buc'n	18,003
1942	Watling Street	Lord Derby	15,530
1943	Straight Lead	Miss Dorothy Paget	17,552
1944	Ocean Swell	Lord Rosebery	23,604
1945	Dante	Sir Eric Ohlson	33,356
1946	Airborne	J. E. Ferguson	38,662
1947	Pearl Diver	B. G. de Waldner	38,788
1948	My Love	H. H. Aga Khan / Leon Volterra	49,936
1949	Nimbus	Mrs. M. Glenister	56,980
1950	Galcador	Marcel Boussac	47,628
1951	Arctic Prince	Joseph McGrath	54,561

FUTURITY STAKES

Belmont Park; 2-year-olds; 6½ furlongs

Distance 1,263 yards 1 foot from 1892 to 1901, inclusive. Distance 3/4 mile prior to 1892 and from 1902 to 1924, inclusive; about 7/8 mile from 1925 to 1933, inclusive. Run at Sheepshead Bay until 1910. Run at Saratoga by special arrangement in 1910, 1913 and 1914.

Year	Winner	Jockey	Wt.	Win val.
1888	Proctor Knott	S. Barnes	112	$40,900
1889	Chaos	G. Day	109	54,500
1890	Potomac	A. Hamilton	115	67,675
1891	His Highness	J. McLaughlin	130	61,675
1892	Morello	W. Hayward	118	40,450
1893	Domino	F. Taral	130	48,855
1894	The Butterflies	H. Griffin	112	48,710
1895	Requital	H. Griffin	115	53,190
1896	Ogden	F. Turbiville	115	43,790
1897	L'Alouette	R. Clawson	115	34,290
1898	Martimas	H. Lewis	118	36,610
1899	Chacornac	H. Spencer	114	30,630
1900	Ballyhoo Bey	T. Sloan	112	33,580
1901	Yankee	W. O'Connor	119	36,850
1902	Savable	L. Lyne	119	44,500
1903	Hamburg Belle	G. Fuller	114	36,600
1904	Artful	E. Hildebrand	114	40,830
1905	Ormondale	A. Redfern	117	32,960
1906	Electioneer	W. Shaw	117	36,880
1907	Colin	W. Miller	125	26,640
1908	Maskette	J. Notter	118	26,110
1909	Sweep	J. Butwell	126	24,100
1910	Novelty	C. H. Shilling	127	25,360
1913	Pennant	C. Borel	119	15,060
1914	Trojan	C. Burlingame	117	16,010
1915	Thunderer	J. Notter	122	16,590
1916	Campfire	J. McTaggart	125	17,340
1917	Papp	L. Allen	127	15,600
1918	Dunboyne	A. Schuttinger	127	23,360
1919	Man o' War	J. Loftus	127	26,650
1920	Step Lightly	F. Keogh	116	35,870
1921	Bunting	F. Coltiletti	117	39,700
1922	Sally's Alley	A. Johnson	116	47,550
1923	St. James	T. McTaggart	130	64,810
1924	Mother Goose	L. McAtee	114	65,730
1925	Pompey	L. Fator	127	58,480
1926	Scapa Flow	L. Fator	122	65,980
1927	Anita Peabody	C. Lang	124	91,790
1928	High Strung	L. McAtee	122	97,990
1929	Whichone	R. Workman	125	105,730
1930	Jamestown	L. McAtee	130	99,600
1931	Top Flight	R. Workman	127	94,780
1932	Kerry Patch	P. Walls	122	88,690
1933	Singing Wood	R. Jones	122	81,700
1934	Chance Sun	W. D. Wright	122	77,510
1935	Tintagal	S. Coucci	122	66,450
1936	Pompoon	H. Richards	127	55,630
1937	Menow	C. Kurtsinger	119	56,800
1938	Porter's Mite	B. James	119	57,045
1939	Bimelech	F. A. Smith	126	57,710
1940	Our Boots	E. Arcaro	119	65,800
1941	Some Chance	W. Eads	122	57,900
1942	Occupation	G. Woolf	126	57,890
1943	Occupy	G. Woolf	126	55,635
1944	Pavot	G. Woolf	126	53,890
1945	Star Pilot	A. Kirkland	126	52,940
1946	First Flight	E. Arcaro	123	73,350
1947	Citation	A. Snider	122	78,430
1948	Blue Peter	E. Guerin	126	88,410
1949	Guillotine	T. Atkinson	122	87,585
1950	Battlefield	E. Arcaro	122	81,715
1951	Tom Fool	T. Atkinson	122	86,710

GALLANT FOX HANDICAP

Jamaica; 3-year-olds and over; 1 3/16 miles.

Distance 1⅛ miles prior to 1948.

Year	Winner, age	Jockey	Wt.	Win val.
1939	Isolater (6)	J. Stout	119	$ 8,400
1940	Salaminia (3)	D. Meade	107	11,150
1941	Market Wise (3)	W. Eads	119	11,550
1942	Dark Discovery (4)	W. Mehrtens	100	11,300
1943	Eurasian (3)	H. Lindberg	116	19,700
1944	Some Chance (5)	A. Snider	116	37,565
1945	Reply Paid (3)	H. Lindberg	108	39,105
1946	Stymie (5)	B. James	126	53,050
1947	Stymie (6)	C. McCreary	125	56,350
1948	Faultless (4)	H. Woodhouse	118	60,300
1949	Coaltown (4)	S. Brooks	130	38,600
1950	Better Self (5)	W. Boland	116	42,800
1951	County Delight (4)	E. Guerin	119	47,900

GRAND NATIONAL STEEPLECHASE

Belmont Park; 4-year-olds and over; about 3 miles

Run at Morris Park prior to 1905. Distance about 2½ miles prior to 1916.

Year	Winner, age	Jockey	Wt.	Win val.
1899	Trillion (8)	Mr. W. C. Hayes	163	$ 6,150
1900	Philae (5)	Donahue	153	6,525
1901	Sacket (6)	Carson	137	6,100
1902	Geo. W. Jenkins (4)	Ray	133	5,525
1903	Plohn (6)	Ray	141	6,050
1904	St. Jude (4)	Ray	142	5,450
1905	Mackey Dwyer (5)	Holman	149	5,210
1906	Good and Plenty (6)	Ray	170	5,675
1907	Alfar (5)	Owens	143	5,500
1908	Kara (5)	McAfee	138	4,775
1909	Sir Wooster (5)	Davidson	155	740
1910	Rossfenton (4)	W. Allen	138	1,275
1913	Penobscot (4)	Welke	140	1,845
1914	Relluf (7)	T. Tuckey	157	1,650
1915	Mission (6)	B. Haynes	148	1,785
1916	Hibler (7)	T. Parrette	140	1,860
1917	Expectation (6)	B. Haynes	144	1,895
1918	St. Charlcote (6)	C. Smoot	158	1,755
1919	Stonewood (7)	V. Powers	148	2,150
1920	Square Dealer (6)	V. Powers	154	2,075
1921	Earlocker (5)	W. Mahoney	142	3,675
1922	Lytle (8)	R. H. Crawford	136	3,575
1923	Sea Tale (7)	J. Pierce	158	3,675
1924	Dan IV (6)	N. Kennedy	158	4,100
1925	Moseley (5)	C. Smoot	138	6,350
1926	Erne II (5)	R. H. Crawford	149	$ 6,550
1927	Jolly Roger (5)	R. H. Crawford	165	34,750
1928	Jolly Roger (6)	R. H. Crawford	167	35,850
1929	Arc Light (5)	A. Bauman	151	34,450
1930	Tourist II (5)	W. Hunt	148	28,350
1931	Green Cheese (4)	Mr. R McKinney	140	28,250
1932	Tourist II (7)	G. Cooper	158	8,200
1933	Best Play (4)	A. Bauman	132	4,850
1934	Battleship (7)	Mr. C. K. Bassett	147	5,900
1935	Snap Back (6)	W. N. Ball	137	6,050
1936	Bushranger (6)	H. Little	172	5,750
1937	Sailor Beware (5)	H. Little	153	9,200
1938	Annibal (5)	Mr. R. McKinney	156	8,100
1939	Whaddon Chase (4)	J. Penrod	146	9,300
1940	Cottesmore (5)	F Slate	160	14,850
1941	Speculate (5)	T. Roby	142	14,350
1942	Cottesmore (7)	F. Slate	155	13,950
1943	Brother Jones (7)	G. Walker	150	14,500
1944	Burma Road (5)	J. Magee	136	13,385
1945	Mercator (6)	W. Owen	142	15,005
1946	Elkridge (8)	E. Roberts	151	21,425
1947	Adaptable (6)	J. Rich	147	20,700
1948	American Way (6)	D. Marzani	144	22,350
1949	His Boots (4)	D. Marzani	141	15,550
1950	Trough Hill (8)	H. Harris	150	16,450
1951	Oedipus (5)	A. Foot	165	16,750

GRAND NATIONAL STEEPLECHASE

Liverpool, England; 6-year-olds and over; 4 miles, 856 yards (Aintree Course)

Year	Winner	Owner	Starters	Value
1839	Lottery	J. Elmore	17	.....
1840	Jerry	Mr. Villebois	12	.....
1841	Charity	Lord Craven	11	.....
1842	Gaylad	J. Elmore	15	.....
1843	Vanguard	Lord Chesterfield	16	.....
1844	Pioneer	Mr. Quartermaine	22	.....
1845	Cure All	W. S. Crawfurd	15	.....
1846	Pioneer	Mr. Adams	22	.....
1847	Matthew	Mr Courtenay	26	.....
1848	Chandler	Capt. Little	30	.....
1849	Peter Simple	Mr. S. Mason, Jr.	24	$4,025
1850	Abd el Kader	Mr. Osborne	32	.....
1851	Abd el Kader	Mr. Osborne	21	.....
1852	Miss Mowbray	T. F. Mason	24	3,400
1853	Peter Simple	Capt. Little	21	.....
1854	Bourton	Mr. Moseley	..	.....
1855	Wanderer	Mr. Dennis	20	.....
1856	Freetrader	W. Barnet	21	.....
1857	Emigrant	G. Hodgman	28	5,575
1858	Little Charley	C. Capel	16	.....
1859	Half Caste	Mr. Willoughby	20	4,200
1860	Anatis	C. Capel	19	.....
1861	Jealousy	J. Bennett	24	4,925
1862	Huntsman	Visc't de Namur	13	.....
1863	Emblem	Lord Coventry	16	4,275
1864	Emblematic	Lord Coventry	25	.....
1865	Alcibiade	B. J. Angell	23	5,175
1866	Salamander	Mr. Studd	30	.....
1867	Cortolvin	Duke of Hamilton	23	8,300
1868	The Lamb	Lord Poulett	21	7,850
1869	The Colonel	Mr. Wayman	22	8,800
1870	The Colonel	M. Evans	23	7,325
1871	The Lamb	Lord Poulett	25	8,325
1872	Casse Tete	E. Brayley	25	7,275
1873	Disturbance	Capt. Machell	28	9,800
1874	Reugny	Capt. Machell	22	9,450
1875	Pathfinder	H. Bird	18	9,700
1876	Regal	Capt. Machell	19	7,550
1877	Austerlitz	F. G. Hobson	16	$ 6,450
1878	Shifnal	J. Nightingall	12	8,450
1879	The Liberator	G. Moore	18	9,500
1880	Empress	P. Ducrot	14	6,250
1881	Woodbrook	Capt. Kirkwood	13	4,900
1882	Seaman	Lord Manners	12	6,675
1883	Zoedone	Prince C. Kinsky	10	4,625
1884	Voluptuary	H. F. Boyd	15	5,175
1885	Roquefort	A. Cooper	19	5,175
1886	Old Joe	Mr. Douglas	23	6,805
1887	Gamecock	E. Jay	16	6,080
1888	Playfair	Col. E. W. Baird	20	5,905
1889	Frigate	M. A. Maher	20	6,170
1890	Ilex	G. Masterman	16	8,325
1891	Come Away	W. G. Jameson	21	8,400
1892	Father O'Flynn	C. G. Wilson	25	8,400
1893	Cloister	C. G. Duff	15	9,825
1894	Why Not	Capt. C. H. Fenw'k	14	9,875
1895	W. M. f. Borneo	J. Widger	19	9,875
1896	The Soarer	Lord Wavertree	28	9,875
1897	Manifesto	H. M. Dyas	28	9,875
1898	Drogheda	C. G. Adams	25	9,875
1899	Manifesto	J. G. Bulteel	19	9,875
1900	Ambush II	Prince of Wales	16	9,875
1901	Grudon	B. Bletsoe	24	9,875
1902	Shannon Lass	A. Gorham	21	10,000
1903	Drumcree	J. S. Morrison	23	10,000
1904	Moifaa	G. H. Gollan	26	10,000
1905	Kirkland	F. Bibby	27	10,125
1906	Ascetic's Silver	Prince Hatzfeldt	23	10,875
1907	Eremon	S. Howard	23	12,000
1908	Rubio*	Maj. F. Douglas-Pennant	24	12,000
1909	Lutteur III	J. Hennessy	32	12,000
1910	Jenkinstown	S. Howard	25	12,000
1911	Glenside	F Bibby	26	12,500
1912	Jerry M	Mr. C. G. Assheton-Smith	24	16,000

* American bred or owned.

Grand National Steeplechase—(cont.)

Year	Winner	Owner	Starters	Value
1913	Covertcoat	Sir C. G. Assheton-Smith	22	$15,850
1914	Sunloch	T. Tyler	20	17,575
1915	Ally Sloper	Lady Nelson	20	17,575
1916*	Bermouth	P. F. Heybourn	21	5,750
1917*	Ballymacad	Sir G. Bullough	19	6,025
1918*	Poethlyn	Mrs. H. Peel	17	4,925
1919*	Poethlyn	Mrs. H. Peel	22	17,950
1920	Troytown	Major Gerrard	24	21,800
1921	Shaun Spadah	T. McAlpine	35	39,925
1922	Music Hall	Hugh Kershaw	32	35,000
1923	Sgt. Murphy†	Stephen Sanford	28	36,100
1924	Master Rob't	Lord Airlie	30	40,825
1925	Double Chance	Major D. Goold	33	40,600
1926	Jack Horner	C. Schwartz	30	31,550
1927	Sprig	Mrs. M. Partridge	37	41,075
1928	Tipperary Tim	H. S. Kenyon	42	55,900
1929	Gregalach	Mrs. M. A. G'm'll	66	64,625
1930	Shaun Goilin	W. Midwood	41	48,650
1931	Grakle	C. R. Taylor	36	37,240
1932	Forbra	W. Parsonage	36	28,577
1933	Kellsboro Jack†	Mrs. F. A. Clark	34	36,725
1934	Golden Miller	Miss D. Paget	30	36,325
1935	Reynoldstown	Maj. Noel F'rlong	27	32,725
1936	Reynoldstown	Maj. Noel F'rlong	35	35,100
1937	Royal Mail	H. Lloyd Thomas	33	33,225
1938	Battleship†	Mrs. M. Scott	36	37,545
1939	Workman	Sir A. Maguire	37	31,966
1940	Bogskar	Lord Stalbridge	30	16,887
1946	Lovely Cottage	Jock Morant	34	35,300
1947	Caughoo	J. J. McDowell	57	39,728
1948	Sheila's Cottage	John Proctor	43	36,428
1949	Russian Hero	W. F. Williamson	43	37,868
1950	Freebooter	Mrs. L. Brotherton	49	28,000
1951	Nickel Coin	Jeffrey Royle	36	23,744

* Substitute race. † American bred or owned.

HOLLYWOOD GOLD CUP

Hollywood Park; 3-year-olds and over; 1¼ miles.

Run at Santa Anita Park in 1949.

Year	Winner, age	Jockey	Wt.	Win val.
1938	Seabiscuit (5)	G. Woolf	133	$37,150
1939	Kayak II (4)	G. Woolf	125	35,075
1940	Challedon (4)	G. Woolf	133	36,200
1941	Big Pebble (5)	J. Westrope	119	62,475
1944	Happy Issue (4)	H. Woodhouse	119	60,600
1945	Challenge Me (4)	A. Skoronski	108	48,230
1946	Triplicate (5)	B. James	113	79,900
1947	Cover Up (4)	R. Permane	117	73,500
1948	Shannon II (7)	J. Adams	116	67,600
1949	Solidarity (4)	R. Neves	115	100,000
1950	Noor (5)	J. Longden	130	100,000
1951	Citation (6)	S. Brooks	120	100,000

HOPEFUL STAKES

Saratoga; 2-year-olds; 6½ furlongs.

Distance ¾ mile prior to 1925; run at Belmont Park 1943 to 1945, inclusive.

1903	Delhi	C. Gannon	112	$22,275
1904	Tanya	E. Hildebrand	127	29,790
1905	Mohawk II	A. Redfern	130	16,490
1906	Peter Pan	W. Knapp	130	17,640
1907	Jim Gaffney	D. Nicol	115	17,500
1908	Helmet	J. Notter	115	10,990
1909	Rocky O'Brien	V. Powers	122	17,160
1910	Novelty	A. Thomas	130	19,140
1913	Bringhurst	J. Loftus	113	4,100
1914	Regret	J. Notter	127	9,590
1915	Dominant	J. Notter	130	9,150
1916	Campfire	J. McTaggart	130	18,850
1917	Sun Briar	W. Knapp	130	30,600
1918	Eternal	A. Schuttinger	115	30,150
1919	Man o' War	J. Loftus	130	24,600
1920	Leonardo II	A. Schuttinger	115	33,850
1921	Morvich	A. Johnson	130	34,900
1922	Dunlin	C. Kummer	115	38,950
1923	Diogenes	C. Ponce	115	46,800
1924	Master Charlie	G. Babin	130	48,700
1925	Pompey	L. Fator	127	42,850
1926	Lord Chaucer	F. Coltiletti	115	48,850
1927	Brooms	J. Maiben	115	55,750
1928	Jack High	G. Ellis	127	54,100
1929	Boojum	R. Workman	117	54,750
1930	Epithet	W. Kelsay	117	55,000
1931	Tick On	P. Walls	117	45,950
1932	Ladysman	R. Jones	130	41,400
1933	Bazaar	D. Meade	119	33,550
1934	Psychic Bid	M. Garner	122	24,250
1935	Red Rain	R. Workman	124	38,400
1936	Maedic	E. Litzenberger	122	32,600
1937	Sky Larking	A. Robertson	119	31,450
1938	El Chico	N. Wall	126	42,550
1939	Bimelech	F. A. Smith	122	33,750
1940	Whirlaway	J. Longden	122	37,850
1941	Devil Diver	J. Skelly	119	35,950
1942	Devil's Thumb	C. McCreary	122	31,750
1943	Bee Mac	S. Young	118	33,300
1944	Pavot	G. Woolf	126	51,775
1945	Star Pilot	A. Kirkland	112	55,195
1946	Blue Border	A. DeLara	122	46,450
1947	Relic	J. Adams	114	48,200
1948	Blue Peter	E. Guerin	126	47,753
1949	Middleground	D. Gorman	114	44,050
1950	Battlefield	E. Guerin	122	47,550
1951	Cousin	E. Guerin	122	51,700

New York Wagering, Attendance Records

Type of record	Amount	Track	Date
Mutuel handle (8 races)	$5,016,745	Belmont	September 22, 1945
Mutuel handle (7 races)	4,330,471	Jamaica*	November 3, 1945
Mutuel handle (1 race)	763,127	Belmont	September 27, 1945
Daily double	251,682	Jamaica	October 30, 1945
Attendance	64,670	Jamaica	May 30, 1945

* Empire City meeting.

KENTUCKY DERBY

Churchill Downs; 3-year-olds; 1¼ miles

Distance 1½ miles prior to 1896.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1875	Aristides	O. Lewis	100	$2,850	1914	Old Rosebud	J. McCabe	114	9,125
1876	Vagrant	R. Swim	97	2,950	1915	Regret	J. Notter	112	11,450
1877	Baden Baden	W. Walker	100	3,300	1916	George Smith	J. Loftus	117	9,750
1878	Day Star	J. Carter	100	4,050	1917	Omar Khayyam	C. Borel	117	16,600
1879	Lord Murphy	C. Schauer	100	3,550	1918	Exterminator	W. Knapp	114	14,700
1880	Fonso	G. Lewis	105	3,800	1919	Sir Barton	J. Loftus	112½	20,825
1881	Hindoo	J. McLaughlin	105	4,410	1920	Paul Jones	T. Rice	126	30,375
1882	Apollo	B. Hurd	102	4,560	1921	Behave Yourself	C. Thompson	126	38,450
1883	Leonatus	W. Donohue	105	3,760	1922	Morvich	A. Johnson	126	46,775
1884	Buchanan	I. Murphy	110	3,990	1923	Zev	E. Sande	126	53,600
1885	Joe Cotton	E. Henderson	110	4,630	1924	Black Gold	J. D. Mooney	126	52,775
1886	Ben All	P. Duffy	118	4,890	1925	Flying Ebony	E. Sande	126	52,950
1887	Montrose	I. Lewis	118	4,200	1926	Bubbling Over	A. Johnson	126	50,075
1888	Macbeth II	G. Covington	115	4,740	1927	Whiskery	L. McAtee	126	51,000
1889	Spokane	T. Kiley	118	4,970	1928	Reigh Count	C. Lang	126	55,375
1890	Riley	I. Murphy	118	5,460	1929	Clyde Van Dusen	L. McAtee	126	53,950
1891	Kingman	I. Murphy	122	4,680	1930	Gallant Fox	E. Sande	126	50,725
1892	Azra	A. Clayton	122	4,230	1931	Twenty Grand	C. Kurtsinger	126	48,725
1893	Lookout	E. Kunze	122	4,090	1932	Burgoo King	E. James	126	52,350
1894	Chant	F. Goodale	122	4,020	1933	Brokers Tip	D. Meade	126	48,925
1895	Halma	J. Perkins	122	2,970	1934	Cavalcade	M. Garner	126	28,175
1896	Ben Brush	W. Simms	117	4,850	1935	Omaha	W. Saunders	126	39,525
1897	Typhoon II	F. Garner	117	4,850	1936	Bold Venture	I. Hanford	126	37,725
1898	Plaudit	W. Simms	117	4,850	1937	War Admiral	C. Kurtsinger	126	52,050
1899	Manuel	F. Taral	117	4,850	1938	Lawrin	E. Arcaro	126	47,050
1900	Lieut. Gibson	J. Boland	117	4,850	1939	Johnstown	J. Stout	126	46,350
1901	His Eminence	J. Winkfield	117	4,850	1940	Gallahadion	C. Bierman	126	60,150
1902	Alan-a-Dale	J. Winkfield	117	4,850	1941	Whirlaway	E. Arcaro	126	61,275
1903	Judge Himes	H. Booker	117	4,850	1942	Shut Out	W. D. Wright	126	64,225
1904	Elwood	F. Prior	117	4,850	1943	Count Fleet	J. Longden	126	60,725
1905	Agile	J. Martin	122	4,850	1944	Pensive	C. McCreary	126	64,675
1906	Sir Huon	R. Troxler	117	4,850	1945	Hoop Jr.	E. Arcaro	126	64,850
1907	Pink Star	A. Minder	117	4,850	1946	Assault	W. Mehrtens	126	96,400
1908	Stone Street	A. Pickens	117	4,850	1947	Jet Pilot	E. Guerin	126	92,160
1909	Wintergreen	V. Powers	117	4,850	1948	Citation	E. Arcaro	126	83,400
1910	Donau	F. Herbert	117	4,850	1949	Ponder	S. Brooks	126	91,600
1911	Meridian	G. Archibald	117	4,850	1950	Middleground	W. Boland	126	92,650
1912	Worth	C. H. Shilling	117	4,850	1951	Count Turf	C. McCreary	126	98,050
1913	Donerail	R. Goose	117	5,475					

MASSACHUSETTS HANDICAP

Suffolk Downs; 3-year-olds and over; 1¼ miles.

Distance 1⅛ miles prior to 1948.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1935	Top Row (4)	G. Woolf	116	$18,750	1944	First Fiddle (5)	J. Longden	124	41,850
1936	Time Supply (5)	R. Workman	121	23,500	1945	First Fiddle (6)	J. Longden	121	42,750
1937	Seabiscuit (4)	J. Pollard	130	51,780	1946	Pavot (4)	A. Kirkland	120	47,750
1938	Menow (3)	N. Wall	107	40,550	1947	Stymie (6)	C. McCreary	128	41,150
1939	Fighting Fox (4)	J. Stout	113	49,250	1948	Beauchef (5)	R. Donoso	115	47,250
1940	Eight Thirty (4)	H. Richards	126	46,550	1949	First Nighter (4)	J. Renick	104	39,200
1941	War Relic (3)	T. Atkinson	102	48,350	1950	Cochise (4)	E. Arcaro	120	21,400
1942	Whirlaway (4)	G. Woolf	130	43,850	1951	One Hitter (5)	T. Atkinson	113	22,000
1943	Market Wise (5)	V. Nodarse	126	39,650					

NARRAGANSETT SPECIAL

Narragansett Park; 3-year-olds and over; 1 3/16 miles.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1934	Time Supply (3)	T. Luther	120	$28,000	1943	Market Wise (5)	J. Longden	124	25,300
1935	Top Row (4)	W. D. Wright	110	25,700	1944	Paperboy (6)	W. Mehrtens	110	23,150
1936	Rosemont (4)	H. Richards	121	32,100	1945	Westminster (4)	W. Garner	110	20,400
1937	Calumet Dick (5)	H. Dabson	115	28,200	1946	Lucky Draw (5)	C. McCreary	123	27,950
1938	Stagehand (3)	J. Westrope	119	26,300	1948	Donor (4)	A. Kirkland	110	20,750
1939	Challedon (3)	H. Richards	118	24,600	1949	Donor (5)	W. Mehrtens	118	19,400
1940	Hash (4)	E. Arcaro	122	24,600	1950	De Luxe (4)	E. Rodriguez	110	20,550
1941	War Relic (3)	T. Atkinson	107	22,400	1951	Hall of Fame (3)	T. Atkinson	118	18,950
1942	Whirlaway (4)	G. Woolf	130	24,300					

PREAKNESS STAKES

Pimlico; 3-year-olds; 1 3/16 miles

Distance 1½ miles prior to 1889; 1¼ miles in 1889; 1 1/16 miles 1894 to 1900, inclusive, and 1908; 1 mile and 70 yards from 1901 to 1907, inclusive; 1 mile in 1909 and 1910; 1⅛ miles from 1911 to 1924, inclusive. Run at Brooklyn Jockey Club's Gravesend Course from 1894 to 1908, inclusive. Run in two divisions in 1918.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1873	Survivor	G. Barbee	110	.....	1915	Rhine Maiden	D. Hoffman	104	$1,275
1874	Culpepper	M. Donohue	110	.....	1916	Damrosch	L. McAtee	115	1,380
1875	Tom Ochiltree	L. Hughes	110	.....	1917	Kalitan	E. Haynes	116	4,800
1876	Shirley	G. Barbee	110	.....	1918	War Cloud	J. Loftus	117	12,250
1877	Cloverbrook	C. Holloway	110	.....	1918	Jack Hare Jr.	C. Peak	115	11,250
1878	Duke of Magenta	C. Holloway	110	.....	1919	Sir Barton	J. Loftus	126	24,500
1879	Harold	W. Hughes	110	$2,550	1920	Man o' War	C. Kummer	126	23,000
1880	Grenada	W. Hughes	110	2,000	1921	Broomspun	F. Coltiletti	114	43,000
1881	Saunterer	W. Costello	110	1,950	1922	Pillory	L. Morris	114	51,000
1882	Vanguard	W. Costello	110	1,250	1923	Vigil	B. Marinelli	114	52,000
1883	Jacobus	G. Barbee	110	1,635	1924	Nellie Morse	J. Merimee	121	54,000
1884	Knight of Ellerslie	S. H. Fisher	110	1,905	1925	Coventry	C. Kummer	126	52,700
1885	Tecumseh	J. McLaughlin	118	2,160	1926	Display	J. Maiben	126	53,625
1886	The Bard	S. H. Fisher	118	2,050	1927	Bostonian	A. Abel	126	53,100
1887	Dunboyne	W. Donohue	118	1,675	1928	Victorian	R. Workman	126	60,000
1888	Refund	F. Littlefield	118	1,185	1929	Dr. Freeland	L. Schaefer	126	52,325
1889	Buddhist	H. Anderson	118	1,130	1930	Gallant Fox	E. Sande	126	51,925
1894	Assignee	F. Taral	122	1,830	1931	Mate	G. Ellis	126	48,225
1895	Belmar	F. Taral	115	1,350	1932	Burgoo King	E. James	126	50,375
1896	Margrave	H. Griffin	115	1,350	1933	Head Play	C. Kurtsinger	126	26,850
1897	Paul Kauvar	Thorpe	108	1,420	1934	High Quest	R. Jones	126	25,175
1898	Sly Fox	W. Simms	120	1,450	1935	Omaha	W. Saunders	126	25,325
1899	Half Time	R. Clawson	104	1,580	1936	Bold Venture	G. Woolf	126	27,325
1900	Hindus	H. Spencer	106	1,900	1937	War Admiral	C. Kurtsinger	126	45,600
1901	The Parader	Landry	118	1,605	1938	Dauber	M. Peters	126	51,857
1902	Old England	L. Jackson	115	2,240	1939	Challedon	G. Seabo	126	53,710
1903	Flocarline	W. Gannon	113	1,875	1940	Bimelech	F. A. Smith	126	53,230
1904	Bryn Mawr	E. Hildebrand	108	2,355	1941	Whirlaway	E. Arcaro	126	49,365
1905	Cairngorm	W. Davis	114	2,145	1942	Alsab	B. James	126	58,175
1906	Whimsical	W. Miller	108	2,355	1943	Count Fleet	J. Longden	126	43,190
1907	Don Enrique	G. Mountain	107	2,260	1944	Pensive	C. McCreary	126	60,075
1908	Royal Tourist	E. Dugan	112	2,455	1945	Polynesian	W. D. Wright	126	66,170
1909	Effendi	W. Doyle	116	3,225	1946	Assault	W. Mehrtens	126	96,620
1910	Layminster	R. Estep	84	3,300	1947	Faultless	D. Dodson	126	98,005
1911	Watervale	E. Dugan	112	2,700	1948	Citation	E. Arcaro	126	91,870
1912	Colonel Holloway	C. Turner	107	1,450	1949	Capot	T. Atkinson	126	79,985
1913	Buskin	J. Butwell	117	1,670	1950	Hill Prince	E. Arcaro	126	56,115
1914	Holiday	A. Schuttinger	108	1,355	1951	Bold	E. Arcaro	126	83,110

PIMLICO FUTURITY

Pimlico; 2-year-olds; 1 1/16 miles.

Run in two divisions in 1922. Distance 1 mile prior to 1929.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1921	Morvich	A. Johnson	122	$42,750	1937	Nedayr	W. D. Wright	122	$28,140
1922	Blossom Time	A. Johnson	119	41,015	1938	Challedon	G. Seabo	119	28,770
1922	Sally's Alley	A. Johnson	116	41,015	1939	Bimelech	F. A. Smith	122	33,230
1923	Beau Butler	G. W. Carroll	122	54,030	1940	Bold Irishman	J. Gilbert	122	33,830
1924	Stimulus	H. Thurber	122	49,220	1941	Contradiction	K. McCombs	122	33,910
1925	Canter	C. Turner	117	53,350	1942	Count Fleet	J. Longden	119	30,820
1926	Fair Star	O. Bourassa	119	59,660	1943	Platter	C. McCreary	119	33,440
1927	Glade	L. Morris	114	53,310	1944	Pot o' Luck	D. Dodson	122	35,130
1928	High Strung	L. McAtee	122	50,750	1945	Star Pilot	A. Kirkland	122	36,365
1929	Flying Heels	W. Kelsay	117	55,810	1946	Jet Pilot	J. Gilbert	122	37,615
1930	Equipoise	R. Workman	119	50,360	1947	Citation	D. Dodson	119	36,675
1931	Top Flight	R. Workman	119	56,170	1948	Capot	T. Atkinson	119	47,325
1932	Swivel	J. Gilbert	116	62,430	1949	Oil Capitol	E. J. Knapp	122	48,755
1935	Hollywood	S. Coucci	122	45,850	1950	Big Stretch	T. Atkinson	122	45,090
1936	Matey	H. Richards	119	25,300	1951	Cajun	N. Shuk	122	46,540

King's Plate to Major Factor

Major Factor, owned by E. P. Taylor of Toronto, captured the ninety-second running of the King's Plate at Woodbine Park, Toronto, last May. The gelding was timed in 1:53 for the mile and an eighth, one second slower than the record for the classic.

PIMLICO SPECIAL

Pimlico; 3-year-olds and over; 1 3/16 miles.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1937	War Admiral (3)	C. Kurtsinger	128	$ 5,680	1944	Twilight Tear (3)	D. Dodson	117	$25,000
1938	Seabiscuit (5)	G. Woolf	120	15,000	1945	Armed (4)	D. Dodson	126	25,000
1939	Challedon (3)	E. Arcaro	120	10,000	1946	Assault (3)	E. Arcaro	120	25,000
1940	Challedon (4)	G. Woolf	126	10,000	1947	Fervent (3)	A. Snider	120	25,000
1941	Market Wise (3)	W. Eads	120	10,000	1948*	Citation (3)	E. Arcaro	120	10,000
1942*	Whirlaway (4)	G. Woolf	126	10,000	1949	Capot (3)	T. Atkinson	120	15,000
1943	Shut Out (4)	E. Arcaro	126	25,000	1950	One Hitter (4)	T. Atkinson	126	15,000
					1951	Bryan G. (4)	O. Scurlock	126	15,000

* Walkover.

SANTA ANITA DERBY

Santa Anita Park; 3-year-olds; 1⅛ miles

Distance 1⅛6 miles prior to 1938; 1¼ miles in 1947.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1935	Gille	S. Coucci	126	$19,650	1945	Bymeabond	G. Woolf	119	$37,250
1936	He Did	W. D. Wright	126	26,000	1946	Knockdown	R. Permane	122	74,680
1937	Fairy Hill	M. Peters	121	45,425	1947	On Trust	J. Longden	118	81,750
1938	Stagehand	J. Westrope	118	42,350	1948	Salmagundi	J. Longden	118	79,800
1939	Ciencia	C. Bierman	115	41,850	1949	Old Rockport	G. Glisson	118	94,700
1940	Sweepida	R. Neves	120	43,850	1950	Your Host	J. Longden	118	89,800
1941	Porter's Cap	L. Haas	120	44,975	1951	Rough'n Tumble	E. Arcaro	118	81,500

SANTA ANITA HANDICAP

Santa Anita Park; 3-year-olds and over; 1¼ miles.

1935	Azucar (7)	G. Woolf	117	$108,400	1945	Thumbs Up (6)	J. Longden	130	$82,922
1936	Top Row (5)	W. D. Wright	116	104,600	1946	War Knight (6)	J. Adams	115	101,205
1937	Rosemont (5)	H. Richards	124	90,700	1947	Olhaverry (8)	M. Peterson	116	98,900
1938	Stagehand (3)	N. Wall	100	91,450	1948	Talon (6)	E. Arcaro	122	102,500
1939	Kayak II (4)	J. Adams	110	91,100	1949	Vulcan's Forge (4)	D. Gorman	119	102,000
1940	Seabiscuit (7)	J. Pollard	130	86,650	1950	Noor (5)	J. Longden	110	97,900
1941	Bay View (4)	N. Wall	108	89,360	1951	Moonrush (5)	J. Longden	114	97,900

SUBURBAN HANDICAP

Belmont Park; 3-year-olds and over; 1¼ miles.

Run at Sheepshead Bay prior to 1913.

Year	Winner, age	Jockey	Wt.	Win val.	Year	Winner, age	Jockey	Wt.	Win val.
1884	Gen. Monroe (6)	W. Donohue	124	$ 4,945	1919	Corn Tassel (5)	L. Ensor	108	$ 5,200
1885	Pontiac (4)	H. Olney	102	5,855	1920	Paul Jones (3)	A. Schuttinger	106	6,350
1886	Troubadour (4)	W. Fitzpatrick	115	5,697	1921	Audacious (5)	C. Kummer	120	8,100
1887	Eurus (4)	G. Davis	102	6,065	1922	Captain Alcock (5)	C. Ponce	108	8,200
1888	Elkwood (5)	W. Martin	119	6,812	1923	Grey Lag (5)	E. Sande	135	7,800
1889	Raceland (4)	E. Garrison	120	6,900	1924	Mad Hatter (8)	E. Sande	125	9,150
1890	Salvator (4)	I. Murphy	127	6,900	1925	Sting (4)	B. Bruening	122	11,600
1891	Loantaka (5)	M. Bergen	110	9,900	1926	Crusader (3)	J. Callahan	104	13,150
1892	Montana (4)	E. Garrison	115	17,750	1927	Crusader (4)	C. Kummer	127	11,875
1893	Lowlander (5)	P. McDermott	105	17,750	1928	Dolan (4)	J. Callahan	105	13,875
1894	Ramapo (4)	F. Taral	120	12,070	1929	Bateau (4)	E. Ambrose	112	14,100
1895	Lazzarone (4)	A. Hamilton	115	4,730	1930	Petee Wrack (5)	E. Sande	122	11,850
1896	Henry of Navarre (5)	H. Griffin	129	5,850	1931	Mokatam (4)	A. Robertson	123	11,200
1897	Ben Brush (4)	W. Simms	123	5,850	1932	White Clover II (6)	R. Workman	115	11,100
1898	Tillo (4)	A. Clayton	119	6,800	1933	Equipoise (5)	R. Workman	132	7,250
1899	Imp (5)	N. Turner	114	6,800	1934	Ladysman (4)	S. Coucci	114	5,750
1900	Kinley Mack (4)	P. McCue	125	6,800	1935	Head Play (5)	C. Kurtsinger	114	12,175
1901	Alcedo (4)	H. Spencer	112	7,800	1936	Firethorn (4)	H. Richards	116	12,125
1902	Gold Heels (4)	O. Wonderly	124	7,800	1937	Aneroid (4)	C. Rosengarten	110	10,950
1903	Africander (3)	G. Fuller	110	16,490	1938	Snark (5)	J. Longden	120	17,050
1904	Hermis (5)	A. Redfern	127	16,800	1939	Cravat (4)	J. Westrope	121	17,750
1905	Beldame (4)	F. O'Neill	123	16,800	1940	Eight Thirty (4)	H. Richards	127	19,850
1906	Go Between (5)	W. Shaw	116	16,800	1941	Your Chance (4)	D. Meade	114	25,200
1907	Nealon (4)	*W. Dugan	113	16,800	1942	Market Wise (4)	B. James	124	27,800
1908	Ballot (4)	J. Notter	127	19,750	1943	Don Bingo (4)	J. Renick	104	27,600
1909	Fitz Herbert (3)	E. Dugan	105	3,850	1944	Aletern (5)	H. Lindberg	108	39,210
1910	Olambala (4)	G. Archibald	115	4,800	1945	Devil Diver (6)	E. Arcaro	132	34,995
1913	Whisk Broom II (6)	J. Notter	139	3,000	1946	Armed (5)	D. Dodson	130	43,000
1915	Stromboli (4)	C. Turner	122	3,925	1947	Assault (4)	E. Arcaro	130	40,000
1916	Friar Rock (3)	M. Garner	101	3,450	1948	Harmonic (4)	W. Mehrtens	109	39,700
1917	Boots (6)	J. Loftus	122	4,900	1949	Vulcan's Forge (4)	E. Arcaro	124	43,200
1918	Johren (3)	F. Robinson	110	5,850	1950	Loser Weeper (5)	N. Combest	115	41,400
					1951	Busanda (4)	K. Stuart	102	42,100

TRAVERS STAKES

Saratoga; 3-year-olds; 1¼ miles.

Distance 1¼ miles prior to 1890; 1½ miles in 1890, 1891, and 1892; 1¼ miles in 1893, 1894 and 1897; 1⅛ miles in 1895, 1901, 1902, and 1903. Run as Travers Midsummer Derby from 1927 to 1932, inclusive. Run at Belmont Park from 1943 to 1945, inclusive.

Year	Winner	Jockey	Wt.	Win val.
1864	Kentucky	Gilpatrick	100	$2,950
1865	Maiden	Sewell	97	3,400
1866	Merrill	Abe	100	3,500
1867	Ruthless	Gilpatrick	103	2,850
1868	The Banshee	Smith	97	3,150
1869	Glenelg	C. Miller	110	3,000
1870	Kingfisher	C. Miller	110	4,950
1871	Harry Bassett	W. Miller	110	5,600
1872	Joe Daniels	J. Rowe	110	5,500
1873	Tom Bowling	R. Swim	110	5,400
1874	Attila	Barbee	110	5,050
1875	D'Artagnan	Barbee	110	4,850
1876	Sultana	Hayward	107	3,700
1877	Baden Baden	Sayers	110	4,550
1878	Duke of Magenta	Hughes	118	4,250
1879	Falsetto	I. Murphy	118	4,950
1880	Grenada	Hughes	118	3,750
1881	Hindoo	J. McLaughlin	118	2,950
1882	Carley B	Quantrell	115	3,450
1883	Barnes	J. McLaughlin	118	3,400
1884	Rataplan	Fitzpatrick	118	$4,150
1885	Bersan	Spellman	118	4,025
1886	Inspector B	J. McLaughlin	118	3,825
1887	Carey	Blaylock	118	3,825
1888	Sir Dixon	J. McLaughlin	118	4,625
1889	Long Dance	Barnes	118	3,700
1890	Sir John	Bergen	118	4,925
1891	Vallera	R. Williams	122	2,900
1892	Azra	Clayton	122	2,750
1893	Stowaway	McDermott	107	2,450
1894	Henry of Navarre	Taral	125	2,350
1895	Liza	Griffin	104	1,125
1897	Rensselaer	Taral	126	1,425
1901	Blues	Shaw	126	6,750
1902	Hermis	Rice	111	6,750
1903	Ada Nay	F. O'Neill	106	8,150
1904	Broomstick	T. Burns	129	5,850
1905	Dandelion	Shaw	111	8,350
1906	Gallavant	W. Miller	111	5,800
1907	Frank Gill	Notter	129	5,800
1908	Dorante	J. Lee	116	5,800
1909	Hilarious	Scoville	129	5,800
1910	Dalmatian	C. H. Shilling	129	4,825
1913	Rock View	T. McTaggart	129	2,725
1914	Roamer	J. Butwell	123	3,000
1915	Lady Rotha	M. Garner	106	2,150
1916	Spur	J. Loftus	129	3,125
1917	Omar Khayyam	J. Butwell	129	5,350
1918	Sun Briar	W. Knapp	120	7,700
1919	Hannibal	L. Ensor	120	9,835
1920	Man o' War	A. Schuttinger	129	9,275
1921	Sporting Blood	L. Lyke	116	10,275
1922	Little Chief	L. Fator	123	11,325
1923	Wilderness	B Marinelli	120	13,550
1924	Sun Flag	F. Keogh	115	14,675
1925	Dangerous	C. Kummer	115	13,425
1926	Mars	F. Coltiletti	123	15,050
1927	Brown Bud	L. Fator	120	29,925
1928	Petee-Wrack	S. O'Donnell	117	30,550
1929	Beacon Hill	A. Robertson	117	31,820
1930	Jim Dandy	F. J. Baker	120	27,050
1931	Twenty Grand	L. McAtee	126	33,000
1932	War Hero	J. Gilbert	115	23,150
1933	Inlander	R. Jones	126	21,050
1934	Observant	L. Humphries	112	14,650
1935	Gold Foam	S. Coucci	112	14,675
1936	Granville	J. Stout	127	14,700
1937	Burning Star	W. D. Wright	117	14,550
1938	Thanksgiving	E. Arcaro	117	14,400
1939	Eight Thirty	H. Richards	117	16,575
1940	Fenelon	J. Stout	122	17,425
1941	Whirlaway	A. Robertson	130	16,900
1942	Shut Out	E. Arcaro	130	17,825
1943	Eurasian	S. Brooks	112	19,850
1944	By Jimminy	E. Arcaro	126	25,015
1945	Adonis	C. McCreary	110	28,680
1946	Natchez	T. Atkinson	124	24,750
1947	Young Peter	T. May	124	19,375
1948	Ace Admiral	T. Atkinson	108	19,650
1949	Arise	C. Errico	108	16,000
1950	Lights Up	G. Hettinger	110	16,350
1951	Battlefield	E. Arcaro	123	15,000

WASHINGTON PARK FUTURITY

Washington Park; 2-year-olds; 3/4 mile.

Year	Winner	Jockey	Wt.	Win val.
1937	Tiger	A. Robertson	117	$26,135
1940	Porter's Cap	C. Bierman	117	30,780
1941	Alsab	R. L. Vedder	119	32,575
1942	Occupation	L. Balaski	122	58,475
1943	Occupy	L. Whiting	113	43,625
1944	Free for All	O. Grohs	122	47,850
1945	Revoked	A. Bodlou	118	56,700
1946	Education	J. Adams	118	65,125
1947	Bewitch	D. Dodson	119	63,150
1948	Model Cadet	A. Skoronski	118	60,750
1949	Curtice	O. Scurlock	115	57,850
1950	To Market	A. Rivera	122	57,390
1951	Oh Leo	P. Bailey	122	62,700

WIDENER

Hialeah Park; 3-year-olds and over; 1¼ miles

Run as Widener Challenge Cup Handicap prior to 1938. Run as Widener Handicap from 1938 to 1944, inclusive.

Year	Winner, age	Jockey	Wt.	Win val.
1936	Mantagna (4)	E. Litzenberger	109	$10,150
1937	Columbiana (4)	H. Le Blanc	103	52,000
1938	War Admiral (4)	C. Kurtsinger	130	49,550
1939	Bull Lea (4)	I. Anderson	119	46,450
1940	Many Stings (5)	R. Donoso	109	52,000
1941	Big Pebble (5)	G. Seabo	109	51,800
1942	The Rhymer (4)	E. Arcaro	111	53,950
1944	Four Freedoms (4)	E. Arcaro	109½	29,350
1946	Armed (5)	D. Dodson	128	45,700
1947	Armed (6)	D. Dodson	129	43,900
1948	El Mono (4)	P. Roberts	112	43,800
1949	Coaltown (4)	T. Atkinson	123	42,300
1950	Royal Governor (6)	C. Rogers	118	43,000
1951	Sunglow (4)	D. Dodson	116	54,100

WOOD MEMORIAL

Jamaica; 3-year-olds; 1 1/16 miles

Run as Wood Stakes prior to 1927. Distance 1 mile and 70 yards from 1925 to 1939, inclusive. Run as Wood Memorial Stakes from 1927 to 1941, inclusive. Run in two divisions in 1944, 1945, and 1947.

Year	Winner	Jockey	Wt.	Win val.	Year	Winner	Jockey	Wt.	Win val.
1925	Backbone	I. Parke	110	$ 7,600	1940	Dit	L. Haas	120	19,225
1926	Pompey	B. Breuning	120	8,700	1941	Market Wise	D. Meade	120	16,650
1927	Saxon	G. Ellis	117	9,050	1942	Requested	W. D. Wright	120	22,900
1928	Distraction	D. McAuliffe	120	11,300	1943	Count Fleet	J. Longden	126	20,150
1929	Essare	M. Garner	110	11,000	1944	Stir Up	E. Arcaro	126	19,625
1930	Gallant Fox	E. Sande	120	10,150	1944	Lucky Draw	J. Longden	126	20,115
1931	Twenty Grand	C. Kurtsinger	120	10,200	1945	Jeep	A. Kirkland	126	18,945
1932	Universe	L. McAtee	120	10,400	1945	Hoop Jr.	E. Arcaro	126	18,945
1933	Mr. Khayyam	P. Walls	122	3,760	1946	Assault	W. Mehrtens	126	22,600
1934	High Quest	D. Bellizzi	120	3,990	1947	Phalanx	E. Arcaro	126	31,325
1935	Today	R. Workman	112	11,350	1947	I Will	E. Arcaro	126	31,625
1936	Teufel	E. Litzenberger	112	10,775	1948	My Request	D. Dodson	126	34,600
1937	Melodist	J. Longden	120	19,105	1949	Olympia	E. Arcaro	126	31,850
1938	Fighting Fox	J. Stout	120	17,450	1950	Hill Prince	E. Arcaro	126	34,500
1939	Johnstown	J. Stout	120	17,675	1951	Repetoire	P. McLean	126	35,250

Facts on Citation

Record by Years

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1947	2	9	8	1	0	0	$155,680
1948	3	20	19	1	0	0	*709,470
1949	4	0	0	0	0	0	.....
1950	5	9	2	7	0	0	73,480
1951	6	7	3	1	2	1	147,130
Totals		45	32	10	2	1	$1,085,760

Stake Victories

1947

Date	Event	Dist.	Wt.	Time	Earnings
July 30	Elementary Stakes	¾	122	1:10⅗	$17,300
Oct. 4	Belmont Futurity	6½	122	1:15⅘	78,430
Nov. 8	Pimlico Futurity	1 1/16	119	1:48⅘	36,675

1948

Feb. 11	Seminole Handicap	⅞	112	1:23	8,525
Feb. 18	Everglades Handicap	1⅛	126	1:49	7,200
Feb. 28	Flamingo Stakes	1⅛	126	1:48⅘	43,500
Apr. 17	Chesapeake Stakes	1 1/16	122	1:45⅘	19,750
Apr. 27	Derby Trial	1	118	1:37⅗	8,525
May 1	Kentucky Derby	1¼	126	2:05⅘	83,400
May 15	Preakness Stakes	1 3/16	126	2:02⅘	91,870
May 29	Jersey Stakes	1¼	126	2:03	43,300
June 12	Belmont Stakes	1½	126	2:28⅘	77,700
July 5	Stars and Stripes	1⅛	119	1:49⅘	38,000
Aug. 28	American Derby	1¼	126	2:01⅗	66,450
Sept. 29	Sysonby Mile	1	119	1:36	20,200
Oct. 2	Jockey Club Gold Cup	2	117	3:21⅘	72,700
Oct. 16	Empire City Gold Cup	1⅛	119	2:42⅘	75,600
Oct. 29	*Pimlico Special	1 3/16	120	1:59⅘	10,000
Dec. 11	Tanforan Handicap	1¼	123	2:02⅘	31,800

* Walkover.

1950

June 3	Golden Gate Mile	1	128	1:33⅘	14,550

1951

July 4	American Handicap	1⅛	123	1:48⅘	33,000
July 14	Hollywood Gold Cup	1¼	120	2:01	100,000

(Citation was retired on July 19, 1951)

Racing Museum Opens

Horse racing's National Museum, located in the Congress Park Casino in Saratoga Springs, N. Y., was opened for the first time last August. C. V. Whitney is the president of the organization.

ENGLISH STAKE WINNERS, 1951

Ascot Gold Cup—Edouard Constant's Pan II

Cambridgeshire—Mrs. M. E. Johnson's Fleeting Moment

Cesarewitch—C. P. Crofts' Three Cheers

Coronation Cup—Francois Dupre's Tantieme

Epsom Derby—Joseph McGrath's Arctic Prince

Epsom Oaks—Major Lionel Holliday's Neasham Belle

Eclipse—Mrs. V. Esmond's and Baron Geoffrey de Waldner's Mystery IX

Festival of Britain—Mrs. Vera Lilley's Supreme Court

Grand National Steeplechase—Jeffrey Royle's Nickel Coin

Gimcrack—Raymond Bell's Windy City

Lincolnshire—H. Lane's Barnes Park

1,000 Guineas—H. S. Tufton's Belle of All

St. Leger—Marcel Boussac's Talma II

2,000 Guineas—Billy Ley On's Ki Ming

Winston Churchill—Winston Churchill's Colonist II

U. S. RACE TRACK DISTANCES

(From nearest large cities)

New York—Aqueduct, 12 miles; Jamaica, 15; Belmont Park, 20; Monmouth Park, 35.

Baltimore—Pimlico, 5 (from Washington, 40); Laurel Park, 20 (from Washington, 20); Bowie, 21 (from Washington, 19); Havre de Grace, 38 (from Washington, 78).

Philadelphia—Garden State Park, 7 (from Camden, 4); Delaware Park, 29 (from Wilmington, 9); Atlantic City, 46 (from Atlantic City, 14).

Chicago—Hawthorne, 8; Arlington Park, 23; Washington Park, 23; Lincoln Fields, 30.

Los Angeles—Santa Anita Park, 10; Hollywood Park, 11; Del Mar, 104.

Miami (Fla.)—Hialeah Park, 19; Tropical Park, 13; Gulfstream Park, 14.

Boston—Suffolk Downs, 3; Rockingham Park, 38; Narragansett Park, 37 (from Providence, 6); Lincoln Downs, 34 (from Providence, 6).

San Francisco—Tanforan, 14; Bay Meadows, 20; Golden Gate Fields, 11.

Albany (N. Y.)—Saratoga, 33.

LEADING ALL-TIME MONEY-WINNING THOROUGHBREDS

(Through Oct. 27, 1951)

Horse	Owner	Amount	Starts	1st	2d	3d	Win pct.
Citation	Calumet Farm	$1,085,760	45	32	10	2	.711
*Stymie	Mrs. Ethel D. Jacobs	918,485	131	35	33	28	.267
*Armed	Calumet Farm	817,475	81	41	20	10	.506
*Assault	Robert J. Kleberg	675,470	42	18	6	7	.429
*Whirlaway	Calumet Farm	561,161	60	32	15	9	.533
On Trust	E. O. Stice & Sons	547,820	83	21	19	13	.253
Ponder	Calumet Farm	541,275	41	14	7	4	.341
Bewitch	Calumet Farm	462,625	55	20	10	11	.364
Gallorette	Mrs. Marie Moore	445,535	72	21	20	13	.292
*Seabiscuit	Charles S. Howard	437,730	89	33	15	13	.371

* Horses which have headed list.

LEADING JOCKEYS SINCE 1930

Year	Jockey	Mounts	Winners	Unplaced	Pct.
1930	H. R. Riley	861	177	416	.21
1931	H. Roble	1,174	173	673	.15
1932	J. Gilbert	1,050	212	534	.20
1933	J. Westrope	1,224	301	522	.25
1934	M. Peters	1,045	221	498	.21
1935	C. Stevenson	1,099	206	578	.19
1936	B. James	1,106	245	505	.22
1937	J. Adams	1,265	260	642	.21
1938	J. Longden	1,150	236	575	.21
1939	D. Meade	1,284	255	628	.20
1940	E. Dew	1,377	287	709	.21
1941	D. Meade	1,164	210	611	.18
1942	J. Adams	1,120	245	540	.22
1943	J. Adams	1,069	228	511	.21
1944	T. Atkinson	1,539	287	808	.19
1945	J. D. Jessop	1,085	290	445	.27
1946	T. Atkinson	1,377	233	758	.17
1947	J. Longden	1,327	316	566	.24
1948	J. Longden	1,197	319	494	.27
1949	G. Glisson	1,347	270	679	.20
1950	W. Shoemaker	1,640	388	756	.24
	J. Culmone	1,676	388	787	.23

LEADING TRAINERS SINCE 1930

(Winners saddled)

Year	Name	Winners	Earnings
1930	C. B. Irwin	92	$ 70,411
1931	J. D. Mikel	72	49,770
1932	G. Alexandra	76	55,890
1933	H. Jacobs	116	76,965
1934	H. Jacobs	127	113,055
1935	H. Jacobs	114	95,155
1936	H. Jacobs	177	155,789
1937	H. Jacobs	134	142,474
1938	H. Jacobs	109	116,609
1939	H. Jacobs	106	100,907
1940	D. Womeldorff	108	112,137
1941	H. Jacobs	123	165,964
1942	H. Jacobs	133	186,371
1943	H. Jacobs	128	210,775
1944	H. Jacobs	117	306,821
1945	S. Lipiec	127	238,361
1946	W. Molter	122	329,725
1947	W. Molter	155	833,970
1948	W. Molter	184	1,015,547
1949	W. Molter	129	696,184
	W. H. Bishop	129	236,131
1950	R. H. McDaniel	156	441,590

LEADING MONEY-WINNING OWNERS

(Since 1930)

Year	Name	Amount
1930	C. V. Whitney	$ 385,972
1931	C. V. Whitney	422,923
1932	C. V. Whitney	403,681
1933	C. V. Whitney	241,292
1934	Brookmeade Stable	251,138
1935	A. G. Vanderbilt	303,605
1936	Milky Way Farm Stable	206,450
1937	Mrs. Charles S. Howard	214,559
1938	H. Maxwell Howard	226,495
1939	Belair Stud	284,250
1940	Charles S. Howard	334,120
1941	Calumet Farm	475,091
1942	Greentree Stable	414,432
1943	Calumet Farm	267,915
1944	Calumet Farm	601,660
1945	Maine Chance Farm	589,170
1946	Calumet Farm	564,095
1947	Calumet Farm	1,402,486
1948	Calumet Farm	1,269,710
1949	Calumet Farm	1,128,942
1950	Brookmeade Stable	651,399

TOP MONEY-WINNING HORSES

Year	Horse and age	Starts	1st	Amount
1930	Gallant Fox (3)	10	9	$308,275
1931	Top Flight (2)	7	7	219,000
1932	Gusto (3)	16	4	145,940
1933	Singing Wood (2)	9	3	88,050
1934	Cavalcade (3)	7	6	111,235
1935	Omaha (3)	9	6	142,255
1936	Granville (3)	11	7	110,295
1937	Seabiscuit (4)	15	11	168,580
1938	Stagehand (3)	15	8	189,710
1939	Challedon (3)	15	9	184,535
1940	Bimelech (3)	7	4	110,005
1941	Whirlaway (3)	20	13	272,386
1942	Shut Out (3)	12	8	238,872
1943	Count Fleet (3)	6	6	174,055
1944	Pavot (2)	8	8	179,040
1945	Busher (3)	13	10	273,735
1946	Assault (3)	15	8	424,195
1947	Armed (6)	17	11	376,325
1948	Citation (3)	20	19	709,470
1949	Ponder (3)	21	9	321,825
1950	Noor (5)	12	7	346,940

WORLD RECORDS

Distance	Horse, age, weight, track and location	Date	Time
¼	Big Racket, 4, 111, Hipodromo de las Americas, Mexico City, Mexico	February 5, 1945	:20⅘
2½ f.	Tie Score, 5, 115, Hipodromo de las Americas, Mexico City, Mexico	February 5, 1946	:26⅘
⅝	Atoka, 6, 105, Butte, Mont.	September 7, 1906	:33½
3½ f.	Joe Blair, 5, 115, Juarez, Mexico	February 5, 1916	:39
½	Tie Score 4, 111, Hipodromo de las Americas, Mexico City, Mexico	April 1, 1945	:45⅗
4½ f.	Saggy, 2, 117, Havre de Grace, Md.	April 23, 1947	:51⅘
⅝	Encantadora, 3, 115, Centennial Park, Littleton, Colo.	August 9, 1951	:57
5½ f.	Nance's Ace, 3, 112, Tropical Park, Coral Gables, Fla.	December 27, 1944	1:03⅕
5¼ f.	Fighting Fox, 4, 126, Empire City, Yonkers, N. Y.	July 8, 1939	1:07⅗
	Doublrab, 4, 130, Empire City, Yonkers, N. Y.	July 18, 1942	1:07⅗
¾	*Gelding by Broken Tendril, 3, 123, Brighton, England	August 6, 1929	1:06⅕
	Bolero, 4, 122, Golden Gate Fields, Albany, Calif.	May 27, 1950	1:08⅕
6½ f.	Snark, 4, 109, Hialeah Park, Hialeah, Fla.	February 9, 1937	1:15⅘
⅞	Bolero, 5, 121, Santa Anita Park, Arcadia, Calif.	January 1, 1951	1:21
1	Citation, 5, 128, Golden Gate Fields, Albany, Calif.	June 3, 1950	1:33⅘
1 mi. 70 yd.	South Dakota, 3, 122, River Downs, Cincinnati, Ohio	August 4, 1945	1:40
1 1/16	Count Speed, 4, 122, Golden Gate Fields, Albany, Calif.	October 4, 1947	1:41
1⅛	Noor, 5, 123, Golden Gate Fields, Albany, Calif.	June 17, 1950	1:46⅘
1 1/16	Challedon, 3, 120, Keeneland, Lexington, Ky.	October 10, 1939	1:54⅗
	Lucky Draw, 5, 123, Narragansett Park, Pawtucket, R. I.	September 14, 1946	1:54⅗
1¼	Noor, 5, 127, Golden Gate Fields, Albany, Calif.	June 24, 1950	1:58⅕
1⅜	Man o' War, 3, 126, Belmont Park, Elmont, N. Y.	June 12, 1920	2:14⅖
1½	The Bastard, 3, 124, Newmarket, England	October 18, 1929	2:23
1⅝	Ace Admiral, 4, 122, Santa Anita Park, Arcadia, Calif.	July 23, 1949	2:39⅘
1 mi. 5½ f.	Distribute, 9, 109, River Downs, Cincinnati, Ohio	September 7, 1940	2:51⅗
1¾	Buen Ojo, aged, 133, Montevideo, Uruguay, S. A.	January 8, 1922	2:52⅘
1⅞	Pharawell, 5, 119, Gulfstream Park, Hallandale, Fla.	April 8, 1947	3:13⅘
2	Polazel, 3, 142, Salisbury, England	July 8, 1924	3:15
2 mi. 40 yd.	Winning Mark, 4, 107, Thistle Down Park, Cleveland, Ohio	July 20, 1940	3:29⅗
2 mi. 70 yd.	Filisteo, 7, 116, Pimlico, Baltimore, Md.	October 30, 1941	3:30⅘
2 1/16	Royal Castle, 3, 116, Jamaica, N. Y.	November 15, 1950	3:30⅗
2⅛	Centurion, 5, 119, Newbury, England	September 29, 1923	3:35
2 3/16	Santiago, 5, 112, Narragansett Park, Pawtucket, R. I.	September 27, 1941	3:51⅗
2¼	Dakota, 4, 116, Lingfield, England	May 27, 1927	3:37⅗
2⅜	Wiki Jack, 4, 97, Tijuana, Mexico	February 8, 1925	4:15
2½	Miss Grillo, 6, 118, Pimlico, Md.	November 12, 1948	4:14⅗
2⅝	†Worthman, 5, 101, Tijuana, Mexico	February 22, 1925	4:51⅗
2¾	Shot Put, 4, 126, Washington Park, Homewood, Ill.	August 14, 1940	4:48⅘
2⅞	‡Bosh, 5, 100, Tijuana, Mexico	March 8, 1925	5:23
3	Farragut, 5, 113, Agua Caliente, Mexico	March 9, 1941	5:15
3⅜	Winning Mark, 4, 104, Washington Park, Homewood, Ill.	August 21, 1940	6:13
4	Sotemia, 5, 119, Churchill Downs, Louisville, Ky.	October 7, 1912	7:10⅘

* 3/4 mile course at Brighton is started from a hill and is down grade to within one-third of a mile of the finish.
† Track heavy. ‡ Track sloppy.

Straight Course

Distance	Horse, age, weight, track and location	Date	Time
¼	Bob Wade, 4, 122, Butte, Mont.	August 20, 1890	:21¼
⅜	King Rhymer, 2, 118, Santa Anita Park, Arcadia, Calif.	February 27, 1947	:32
½	Gloaming, 6, 127, Trentham, Wellington, New Zealand	January 12, 1921	:45
4½ f.	The Pimpernel, 2, 118, Belmont Park, Elmont, N. Y.	May 17, 1951	:49⅘
⅝	Devineress, 3, 103, Epsom Downs, Epsom, England	June 2, 1933	:54⅗
5½ f.	Delegate, 7, 113, Belmont Park, Elmont, N. Y.	October 10, 1951	1:01⅗
¾	Artful, 2, 130, Morris Park, New York, N. Y.	October 15, 1904	1:08
6½ f.	Porter's Mite, 2, 119, Belmont Park, Elmont, N. Y.	September 17, 1938	1:14⅖
*Abt⅛	High Strung, 2, 122, Belmont Park, Elmont, N. Y.	September 15, 1928	1:19
⅞	First Edition, 4, 126, Hurst Park, Hampton Court England	May 25, 1926	1:20
1	Mopsus, 3, 105, Brighton, England	June 22, 1939	1 32
1¼	Banquet, 3, 108, Monmouth Park, New Jersey	July 17, 1890	2.03⅗

* 165 feet short of 7/8 mile.

French Stake Winners, 1951

Prix de l'Arc de Triomphe—Francois Dupre's Tantieme
Grand Prix de Paris—Jean Stern's Sicambre
Prix du Jockey Club (French Derby)—Jean Stern's Sicambre
Prix de Diane (French Oaks)—Maurice Hennessy's Stratonic

The Yolo Stable's Great Circle won the $205,700 Santa Anita Maturity Stakes at Santa Anita Park in 1951. Great Circle, a brown colt by Beau Pere-Hemisphere, annexed the richest stake in the world by one and three-quarters lengths over T. G. Benson's Lotowhite. The victory was worth $144,325.

Man o' War's Record

(Bred by August Belmont. Owned by Glen Riddle Farm.)

1919

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
June 6	Belmont Park	Purse	5/8 st	115	1	:59	3–5	$ 500
June 9	Belmont Park	Keene Memorial Stakes	5½f st	115	1	1:05⅗	7–10	4,200
June 21	Jamaica	Youthful Stakes	5½f	120	1	1:06⅘	1–2	3,850
June 23	Aqueduct	Hudson Stakes	5/8	130	1	1:01⅗	1–10	2,825
July 5	Aqueduct	Tremont Stakes	¾	130	1	1:13	1–10	4,800
Aug. 2	Saratoga	United States Hotel Stakes	¾	130	1	1:12⅘	9–10	7,600
Aug. 13	Saratoga	Sanford Memorial Stakes	¾	130	2	1:11⅕	11–20	700
Aug. 23	Saratoga	Grand Union Hotel Stakes	¾	130	1	1:12	11–20	7,600
Aug. 30	Saratoga	Hopeful Stakes	¾	130	1	1:13	9–20	24,600
Sept. 13	Belmont Park	Belmont Futurity	¾ st	127	1	1:11⅘	1–2	26,655
						Total		$83,320

1920

Date	Track	Race	Dist.	Wt.	Fin.	Time	Odds	Earnings
May 18	Pimlico	Preakness Stakes	1⅛	126	1	1:51⅗	4–5	$23,000
May 29	Belmont Park	Withers Stakes	1	118	1	1:35⅘	1–7	4,825
June 12	Belmont Park	Belmont Stakes	1½	126	1	2:14⅕	1–25	7,950
June 22	Jamaica	Stuyvesant Handicap	1	135	1	1:41⅗	1–100	3,850
July 10	Aqueduct	Dwyer Stakes	1⅛	126	1	1:49⅕	1–5	4,850
Aug. 7	Saratoga	Miller Stakes	1 3/16	131	1	1:56⅗	1–30	4,700
Aug. 21	Saratoga	Travers Stakes	1¼	129	1	2:01⅘	2–9	9,275
Sept. 4	Belmont Park	Lawrence Realization Stakes	1⅝	126	1	2:40⅘	1–100	15,040
Sept. 11	Belmont Park	Jockey Club Stakes	1½	118	1	2:28⅘	1–100	5,850
Sept. 18	Havre de Grace	Potomac Handicap	1 1/16	138	1	1:44⅘	15–100	6,800
Oct. 12	Kenilworth Park	Kenilworth Park Gold Cup	1¼	120	1	2:03	1–20	80,000
						Total		$166,140

RECAPITULATION

Year	Age	Sts.	1st	2d	3d	Unp.	Earnings
1919	2	10	9	1	0	0	$ 83,325
1920	3	11	11	0	0	0	166,140
Totals		21	20	1	0	0	$249,465

(Man o' War died on Nov. 1, 1947.)

THOROUGHBRED RACING ASSOCIATIONS OF THE UNITED STATES, INC.

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Filly Brings Record Bid

C. S. Jones of Long Beach, Calif., bought a bay daughter of Bull Lea-Lady Lark for $60,000, a record price for a yearling filly at a public auction, at the sales at Lexington, Ky., last August.

OTHER STAKE WINNERS IN 1951

(This compilation does not include victors listed in tabular matter.)

Key to Abbreviations Used

AQ—Aqueduct (N. Y.)
AP—Arlington Park (Ill.)
AC—Atlantic City (N. J.)
B—Bay Meadows (Calif.)
BE—Belmont Park (N. Y.)
BO—Bowie (Md.)
CD—Churchill Downs (Ky.)
D—Detroit (Mich.)
DP—Delaware Park (Del.)
DM—Del Mar (Calif.)
EC—Empire City (N. Y.)*
FG—Fair Grounds (La.)
GS—Garden State (N. J.)
GG—Golden Gate (Calif.)
GP—Gulfstream Park (Fla.)
HP—Hialeah Park (Fla.)
HA—Hawthorne Park (Ill.)
HO—Hollywood Park (Cal.)
J—Jamaica (N. Y.)
K—Keeneland (Ky.)
L—Laurel Park (Md.)
LF—Lincoln Fields (Ill.)†
MP—Monmouth Park (N. J.)
N—Narragansett Park (R. I.)
OP—Oaklawn Park (Ark.)
P—Pimlico (Md.)
RP—Rockingham Park (N. H.)
S—Saratoga (N. Y.)
SA—Santa Anita Park (Cal.)
SD—Suffolk Downs (Mass.)
T—Tanforan (Calif.)
TP—Tropical Park (Fla.)
WP—Washington Park (Ill.)

* At Jamaica. † At Washington Park.

3-Year-Olds and Over

Stake, track, winner, jockey, weight	Win value
ALAMEDA (B)—Special Touch, J. Westrope, 121	$12,740
ALL AMERICAN (AC)—Greek Ship, R. Nash, 119	19,700
AMERICAN (HO)—Citation, S. Brooks, 123	33,050
ATLANTIC CITY TURF—Pacador, R. Nash, 113	19,050
AQUEDUCT—Bryan G., J. Nichols, 120	15,025
ARGONAUT (HO)—Be Fleet, J. Longden, 118	18,900
ARLINGTON (AP)—Cochise, O. Scurlock, 120	98,550
BAY MEADOWS—Moonrush, W. Shoemaker, 121	43,700
BAY SHORE (AQ)—Sheilas Reward, D. Gorman, 126	11,900
BELDAME (AQ)—Thelma Berger, W. Shoemaker, 110	49,300
BEVERLY (WP)—Wistful, S. Brooks, 126	18,975
BIDWELL MEMORIAL (HA)—Mr. Fox, R. L. Baird, 113	16,200
BLACK HELEN (HP)—Antagonism, R. Bernhardt, 108	15,050
*BRANDYWINE (DP)—Cochise, O. Scurlock, 125 ($5,000) and Post Card, S. Boulmetis, 116	6,000
BUCKEYE (Randall Park)—Seaward, D. Madden, 121	15,850
CAMDEN (GS)—Symposium, C. Rogers, 113	12,800
CARTER (AQ)—Arise, E. Guerin, 122	16,000
CHURCHILL DOWNS—Johns Joy, W. M. Cook, 118	8,400
CLANG (WP)—Lithe, L. Bacheller, 115	15,450
CLARK (CD)—Wistful, D. Dodson, 116	7,975
COLONIAL (GS)—Risk A Whirl, D. Johnston, 113	12,500
COLORADO MILE (Centennial Park)—Pintail Sprig, W. Dickinson, 106	12,500
CORRECTION (J)—Growing Up, T. Atkinson, 110	12,550
DEL MAR—Blue Reading, W. Pearson, 124	9,200
DIXIE (P)—County Delight, J. Nichols, 114	18,650
DREXEL (WP)—Johns Joy, D. Dodson, 124	11,100
EDGEMERE (AQ)—One Hitter, T. Atkinson, 117	18,900
EQUIPOISE MILE (AP)—Curandero, J. Westrope, 114	18,475
EXCELSIOR (J)—Lotowhite, E. Arcaro, 116	20,750
FALL HIGHWEIGHT (all ages) (BE)—Guillotine, T. Atkinson, 134	18,700
FIRENZE (J)—Renew, B. Green, 112	23,750
FLEETWING (EC)—More Sun, H. Woodhouse, 110	15,200
GOLD CUP (EC)—Counterpoint, D. Gorman, 119	35,800
GREY LAG (J)—Cochise, O. Scurlock, 122	19,700
HAWTHORNE GOLD CUP—Seaward, A. Gomez, 113	27,250
INGLEWOOD (HO)—Sturdy One, R. Neves, 109	17,950
INTERBOROUGH (J)—Magic Words, E. Guerin, 116	11,550
JAMAICA—Piet, J. Nichols, 124	11,875
JOCKEY CLUB GOLD CUP (BE)—Counterpoint, D. Gorman, 117	35,600
LADIES (BE)—Marta, C. McCreary, 111	21,250
LONGACRES MILE—Little Rollo, H. Mathews, 114	9,050
LOUISIANA (FG)—Thelma Berger, K. Stuart, 102	8,200
MCLENNAN (HP)—Gangway, L. Batcheller, 109	27,050
MANHATTAN (BE)—County Delight, E. Guerin, 122	19,550
MARYLAND (L)—Post Card, W. Mehrtens, 116	11,800
MATRON (AP)—Sickie's Image, B. Fisk, 120	53,925
MEADOWLAND (WP)—Volcanic, A. Rivera, 128	37,400
MERCHANTS' & CITIZENS' (S-at-J)—County Delight, E. Guerin, 123	15,900
MERMAID (AC)—Quiz Song, J. Stout, 110	7,425
METROPOLITAN (BE)—Casemate, D. Gorman, 115	26,000
MIAMI BEACH (HP)—Going Away, J. Culmone, 112	8,650
MODESTY (AP)—Sickie's Image, C. Swain, 120	16,900
MONMOUTH (MP)—Arise, S. Boulmetis, 122	19,200
NEW CASTLE (DP)—Busanda, E. Guerin, 126	42,600
NEW ORLEANS (FG)—Mount Marcy, K. Church, 119	21,150
NEW ROCHELLE (all ages) (EC)—Squared Away, E. Guerin, 115	12,250
NEW YORK (BE)—Hill Prince, E. Arcaro, 128	20,700
OCEAN CITY (AC)—Picador, J. Culmone, 109	11,800
PAUMONOK (J)—Ferd, T. Atkinson, 116	20,650
PHOENIX (K)—Mount Marcy, K. Church, 122	8,800
PRINCETON (GS)—Call Over, J. Culmone, 116	12,150
QUEENS COUNTY (AQ)—Sheilas Reward, O. Scurlock, 113	15,000
*QUESTIONNAIRE (EC)—Bryan G., O. Scurlock, 118 ($12,000) and Arise, E. Guerin, 122	12,000
SAN ANTONIO (SA)—All Blue, W. Shoemaker, 111	44,850
SAN CARLOS (SA)—Bolero, E. Arcaro, 121	41,300
SAN JUAN CAPISTRANO (SA)—Be Fleet, J. Longden, 114	37,800
SAN PASQUEL (SA)—Moonrush, F. A. Smith, 103	38,550
SANTA MARGARITA (SA)—Special Touch, W. Shoemaker, 114	36,400
SARATOGA—Lone Eagle, G. Hettinger, 110	19,950
SARATOGA CUP—Busanda, E. Guerin, 121	10,950
SOUTHERN MARYLAND (BO)—Why Not Now, R. Nash, 116	10,900
STARS AND STRIPES (AP)—Royal Governor, E. Arcaro, 115	41,950
SUNSET (HO)—Alderman, J. Westrope, 112	34,400
SUSSEX (DP)—Cochise, O. Scurlock, 124	19,350
TANFORAN—Sturdy One, R. Neves, 118	26,400
TOBOGGAN (BE)—Hyphasis, R. Bernhardt, 110	17,650
TOP FLIGHT (BE)—Busanda, E. Guerin, 120	12,650
TRENTON (GS)—Call Over, J. Culmone, 116	42,200
VALLEY FORGE (GS)—Ferd, B. James, 124	12,325
VANITY (HO)—Bewitch, S. Brooks, 125	16,950
VINELAND (GS)—Bed o' Roses, E. Guerin, 126	22,100
VOSBURGH (all ages) (BE)—War King, W. Shoemaker, 108	13,125
WASHINGTON (L)—Blue Hills, L. C. Cook, 113	12,425
WASHINGTON PARK—Curandero, A. Gomez, 115	113,950
WESTCHESTER (EC)—Bryan G., O. Scurlock, 117	21,100
WHIRLAWAY (WP)—Wistful, S. Brooks, 111	18,575
WHITNEY (S)—One Hitter, T. Atkinson, 120	15,300
WILMINGTON (DP)—Call Over, C. Givens, 115	8,325
WILSON (S)—Hall of Fame, T. Atkinson, 118	11,550

* Dead heat.

Britain's Richest Horse Race

Mrs. Vera Lilley's Supreme Court won the $84,000 Festival of Britain Stakes, the richest race ever run in England, at Ascot last July. Supreme Court, a 3-year-old brown colt, won the mile and a half weight-for-age test in the track record time of 2:29 2/5 and earned $71,041.60.

3-Year-Olds

Stake, track, winner, jockey, weight	Win value
ACORN (BE) (1st div.)—Kiss Me Kate, W. Mehrtens, 121	$16,750
ACORN (BE) (2d div.)—Nothirdchance, B. Green, 121	16,550
ALABAMA (S)—Kiss Me Kate, E. Arcaro, 126	15,250
ARKANSAS DERBY (OP)—Ruhe, J. D. Jessop, 123	7,625
ASHLAND (K)—Sickle's Image, B. Fisk, 121	8,750
BAHAMAS (HP)—Elixir, H. Woodhouse, 110	7,085
BLACK-EYED SUSAN (P)—Discreet, G. Hettinger, 121	8,500
BLUE GRASS (K) (1st div.)—Mameluke, R. Adair, 121	20,750
BLUE GRASS (K) (2d div.)—Ruhe, J. D. Jessop, 123	20,250
CENTENNIAL DERBY (Centennial Park)—Miobrook, R. Mundorf, 114	6,350
CHESAPEAKE (HG)—Repetoire, P. McLean, 119	15,700
CHOICE (MP)—Battlefield, E. Arcaro, 126	19,150
CINEMA (HO)—Mucho Hosso, F. Chojnacki, 110	8,900
CLEOPATRA (AP)—Sickle's Image, B. Fisk, 115	18,450
COACHING CLUB AMERICAN OAKS (BE)—How, E. Arcaro, 121	11,550
DELAWARE OAKS (DP)—Kiss Me Kate, W. Mehrtens, 119	46,800
DEL MAR DERBY—Grantor, W. Shoemaker, 124	25,705
DERBY TRIAL (CD)—Fanfare, D. Dodson, 112	18,500
DISCOVERY (AQ)—Alerted, O. Scurlock, 114	10,250
DWYER (AQ)—Battlefield, E. Arcaro, 121	15,225
EMPIRE CITY Counter point, D. Gorman, 130	39,800
EXPERIMENTAL NO. 1 (J)—Repetoire, P. McLean, 116	41,500
EXPERIMENTAL NO. 2 (J)—Sonic, J. Colaneri, 105	15,400
FLAMINGO (HP)—Yildiz, W. Mehrtens, 117	18,500
GAZELLE (AQ)—Kiss Me Kate, W. Mehrtens, 121	50,000
HOLLYWOOD OAKS (HO)—Ruth Lily, R. Neves, 121	19,450
JEROME (BE)—Alerted, O. Scurlock, 115	15,350
JERSEY (GS)—Steadfast, H. Woodhouse, 110	17,650
KENT (DP)—Hall of Fame, T. Atkinson, 111	23,900
KENTUCKY OAKS (CD)—How, E. Arcaro, 116	23,300
LAMPLIGHTER (MP)—Uncle Miltie, D. Gorman, 126	22,700
LAWRENCE REALIZATION (BE)—Counterpoint, D. Gorman, 126	14,050
LOUISIANA DERBY (FG)—Whirling Bat, P. Anderson, 111	15,700
LEONARD RICHARDS (DP)—Hall of Fame, T. Atkinson, 119	15,900
MISTY ISLE (WP)—Aunt Jinny, H. Woodhouse, 122	27,230
MONMOUTH OAKS (MP)—Ruddy, T. Atkinson, 121	15,150
PEABODY MEMORIAL (LF)—Pur Sang, J. Adams, 126	13,750
PETER CLARK (B)—Gold Capitol, R. Neves, 123	18,875
PETER PAN (BE)—Counterpoint, D. Gorman, 114	18,750
PROVIDENCE (N)—Loridale, B. Fisk, 112	17,700
SAN JOSE (B)—Mucho Hosso, L. Balaski, 113	18,600
SANTA SUSANA (SA)—Ruth Lily, J. Adams, 115	11,740
SARANAC (S-at-J)—Bold, E. Arcaro, 125	41,700
SHERIDAN (WP)—Bernwood, A. Gomez, 116	10,950
SHEVLIN (AQ)—Battlefield, O. Scurlock, 123	19,800
SWIFT (BE)—Jumbo, E. Guerin, 126	15,150
WARREN WRIGHT MEMORIAL (AP)—Jumbo, D. Dodson, 114	9,025
WESTERNER (HO)—Grantor, W. Shoemaker, 110	17,025
WILL ROGERS (HO)—Gold Note, W. Shoemaker, 114	33,600
WITHERS (BE)—Battlefield, E. Arcaro, 126	15,650
YANKEE (SD)—Out Point, H. Woodhouse, 108	20,600
	8,450

2-Year-Olds

Stake, track, winner, jockey, weight	Win value
ARLINGTON LASSIE (AP)—Princess Lygia, K. Church, 119	45,580
ASTARITA (AQ)—Place Card, A. Kirkland, 111	9,575
BABYLON (AQ)—Indian Land, O. Scurlock, 119	10,300
BASHFORD MANOR (CD)—Red Curtice, J. D. Jessop, 122	10,250
BREEDERS' FUTURITY (K)—Alladier, C. Bierman, 117	27,052
CHAMPAGNE (BE)—Armageddon, W. Shoemaker, 122	24,050
CHRISTIANA (DP)—The Pimpernel, W. Mehrtens, 116	11,225
CINDERELLA (HO)—Thataway, W. Shoemaker, 119	18,350
COLLEEN (MP)—Star-Enfin, H. B. Wilson, 119	10,050
COWDIN (AQ)—Eternal Moon, C. McCreary, 114	18,700
CHARLES S. HOWARD (HO)—Rustaway, J. Longden, 117	23,100
DEBUTANTE (CD)—Crowniet, R. L. Baird, 122	11,050
DEL MAR FUTURITY—Big Noise, R. Neves, 115	26,000
DEL MAR DEBUTANTE—Tonga, G. Glisson, 112	15,050
DEMOISELLE (EC)—Rose Jet, H. Woodhouse, 116	32,600
DOVER (DP)—War Fable, J. West, 116	11,925
EASTVIEW (EC)—Tom Fool, T. Atkinson, 122	35,225
FASHION (BE)—Cigar Maid, B. Green, 110	11,375
GARDEN STATE—Candle Wood, C. Rogers, 117	14,500
GEO WOOLF MEMORIAL (WP)—Baybrook, G. P. Ryan, 119	12,325
GRAND UNION HOTEL (S)—Tom Fool, T. Atkinson, 122	15,900
GREAT AMERICAN (AQ)—Cousin, N. Combest, 118	13,025
HAGGIN (HO) (1st div.)—Bull Chicle, G. Zufelt, 122	17,150
HAGGIN (HO) (2d div.)—My Vengeance, R. Neves, 122	18,100
HAWTHORNE JUVENILE—Oh Leo, P. J. Bailey, 125	13,000
HOLLYWOOD LASSIE (HO)—Thataway, D. Erb, 119	20,850
JOLIET (LF)—Errard's Guide, W. Garner, 122	8,925
JUVENILE (BE)—Primate, T. Atkinson, 122	11,550
LAFAYETTE (K) (1st div.)—Recover, D. Dodson, 113	13,125
LAFAYETTE (K) (2d div.)—Crowniet, R. L. Baird, 114	13,125
MATRON (BE)—Rose Jet, H. Woodhouse, 119	44,830
NATIONAL STALLION (colts) (BE)—Jet Master, E. Arcaro, 122	16,040
NATIONAL STALLION (fillies) (BE)—Cigar Maid, B. Green, 119	15,070
NEW JERSEY FUTURITY (MP)—Visible, C. Rogers, 117	10,830
POLLYANNA (WP)—Princess Lygia, K. Church, 119	13,100
POLLY DRUMMOND (DP)—Papoose, J. Culmone, 111	11,400
PRAIRIE STATE (WP)—Flitting Past, H. Keene, 110	12,000
PRIMER (AP)—Oh Leo, P. J. Bailey, 122	13,625
PRINCESS PAT (WP)—A Gleam, S. Brooks, 110	47,620
RANCOCAS (GS)—Miss Nosoca, F. Bone, 110	14,275
ROSEDALE (J)—Blue Case, W. Mehrtens, 110	10,400
SAN FELIPE (SA)—Phil D., R. York, 122	40,700
SANFORD (S)—Tom Fool, T. Atkinson, 113	8,500
SAPLING (MP)—Landsdair, J. Stout, 111	11,300
SARATOGA SPECIAL—Cousin, E. Guerin, 122	13,000
SCHUYLERVILLE (S)—Rose Jet, E. Guerin, 116	8,375
SELIMA (L)—Rose Jet, E. Guerin, 115	38,380
SPINAWAY (S)—Blue Case, W. Mehrtens, 119	15,575
STARLET (HO)—Prudy's Boy, G. Lasswell, 114	24,900
TREMONT (AQ)—Pintor, H. Woodhouse, 117	8,450
U. S. HOTEL (S)—Jet Master, E. Arcaro, 122	16,225
WAKEFIELD (EC)—Hannibal, W. Passmore, 110	8,875
WM. PENN (GS)—Metal Mike, N. Combest, 117	13,725
WORLD'S PLAYGROUND (AC)—Ed's Pride, J. Skelly, 120	11,550
YOUTHFUL (J)—Primate, E. Arcaro, 117	10,700

1951 LEADERS

(Through Oct. 25)

Money-winning owner—Calumet Farm ($605,380)

Jockey—Charlie Burr (282 winners)

Trainer (winners saddled)—R. H. McDaniel (124)

Money-winning horse—Hall of Fame ($214,955)

Melbourne Cup to Delta

Arthur Basser's Delta, a 10-to-1 shot, won the 1951 running of the Melbourne Cup before 80,000 fans at the Flemington track. The 5-year-old carried 133 pounds and covered the two miles in 3 minutes 24¼ seconds.

FOOTBALL

THE PASTIME of kicking a ball around goes back beyond the limits of recorded history. Ancient savage tribes played football of a primitive kind. There was a ball-kicking game played by Athenians and Spartans and Corinthians 2500 years ago and the Greeks had a name for it: *Episkuros*. The Romans had a somewhat similar game called *Harpastum* and are supposed to have carried the game with them when they invaded the British Isles in the First Century, B.C.

Undoubtedly the game known in the United States as Football traces directly to the English game of Rugby, though the modifications have been many and rather sweeping in some directions. There was informal football on our college lawns well over a century ago and an annual Freshman-Sophomore series of "scrimmages" began at Yale in 1840. But the first formal intercollegiate football game in this country was the Princeton-Rutgers contest played at New Brunswick, N. J., on Nov. 6, 1869, with Rutgers winning by 6 goals to 4. Columbia took to the intercollegiate football field in 1870 and Yale in 1872. Soon many colleges were playing football in the autumn.

In those old days games were played with twenty-five, twenty, fifteen or eleven men on a side by mutual agreement. In 1880 there was a football convention at which Walter Camp of Yale persuaded the delegates to agree to a rule calling for eleven players on a side. In 1882 there was adopted the rule requiring the offensive team to make 5 yards in three downs or surrender the ball to its opponents. The game grew so rough that it was attacked as brutal by many critics and some colleges abandoned the sport. Conditions were so bad in 1906 that President Theodore Roosevelt, an enthusiast for all sports, called a meeting of Yale, Harvard and Princeton representatives at the White House in the hope of reforming and improving the game. The outcome was that the game, with the forward pass introduced and some other modifications of the rules inserted, became faster and cleaner and gradually grew to the tremendous popularity it enjoys today.

Professional football, now firmly established, is an outgrowth of intercollegiate football. The first professional game was played in 1895 at Latrobe, Pa. The National Football League was founded in 1921. The All-America Conference went into action in 1946. At the end of the 1949 season the two major play-for-pay circuits merged, retaining the name of the older league.

RECORD OF ANNUAL POSTSEASON GAMES

Source: Official N.C.A.A. Football Guide

Rose Bowl (Pasadena, Calif.)

1902 Michigan 49, Stanford 0
1916 Washington State 14, Brown 0
1917 Oregon 14, Pennsylvania 0
1918 Mare Island Marines 19, Camp Lewis 7
1919 Great Lakes 17, Mare Island Marines 0
1920 Harvard 7, Oregon 6
1921 California 28, Ohio State 0
1922 Washington & Jefferson 0, California 0
1923 Southern California 14, Penn State 3
1924 Navy 14, Washington 14
1925 Notre Dame 27, Stanford 10
1926 Alabama 20, Washington 19
1927 Alabama 7, Stanford 7
1928 Stanford 7, Pittsburgh 6
1929 Georgia Tech 8, California 7
1930 Southern California 47, Pittsburgh 14
1931 Alabama 24, Washington State 0
1932 Southern California 21, Tulane 12
1933 Southern California 35, Pittsburgh 0
1934 Columbia 7, Stanford 0
1935 Alabama 29, Stanford 13
1936 Stanford 7, Southern Methodist 0
1937 Pittsburgh 21, Washington 0
1938 California 13, Alabama 0
1939 Southern California 7, Duke 3
1940 Southern California 14, Tennessee 0
1941 Stanford 21, Nebraska 13
1942 Oregon State 20, Duke 16*
1943 Georgia 9, U. C. L. A. 0
1944 Southern California 29, Washington 0
1945 Southern California 25, Tennessee 0
1946 Alabama 34, Southern California 14
1947 Illinois 45, U. C. L. A. 14
1948 Michigan 49, Southern California 0
1949 Northwestern 20, California 14
1950 Ohio State 17, California 14
1951 Michigan 14, California 6

* Played at Durham, N. C.

HUNTS MEETING WINNERS IN 1951

Carolina Cup (April 7)—Mrs. Michael G. Walsh's Gift of Gold
Deep Run Hunt Cup (April 14)—F. Ambrose Clark's Night Patrol
My Lady's Manor (April 14)—Mrs. W. J. Clothier's Pine Pep
Mary Mellon Steeplechase (April 21)—F. Ambrose Clark's Lone Fisherman
Grand National Point-to-Point (April 21)—Pine Pep
Maryland Hunt Cup (April 28)—Mrs. John Strawbridge, Jr.'s Jester's Moon
Virginia Gold Cup (May 5)—Mrs. A. S. Carhart's Mister Mars
R. Nelson Buckley Challenge Cup (May 5)—Mrs. A. M. Scaife's Tourist Dream
National Hunt Cup (May 12)—Irl A. Daffin's Irish Monkey
Rose Tree Plate (May 19)—Mrs. T. A. Randolph's Uncle Joe
Adjacent Hunts Plate Handicap (May 26)—W. B. Cock's Extra
Foxcatcher National Cup Steeplechase (Sept. 8)—Justin Funkhouser's Palaja
International Gold Cup (Oct. 6)—Paul Vipond's Friese
New Jersey Hunt Cup (Nov. 3)—Bliss Flaccus' McGinty Moore

Sugar Bowl (New Orleans, La.)

1935 Tulane 20, Temple 14
1936 Texas Christian 3, Louisiana State 2
1937 Santa Clara 21, Louisiana State 14
1938 Santa Clara 6, Louisiana State 0
1939 Texas Christian 15, Carnegie Tech 7
1940 Texas A & M 14, Tulane 13
1941 Boston College 19, Tennessee 13
1942 Fordham 2, Missouri 0
1943 Tennessee 14, Tulsa 7
1944 Georgia Tech 20, Tulsa 18
1945 Duke 29, Alabama 26
1946 Oklahoma A & M 33, St. Mary's (Calif.) 13
1947 Georgia 20, North Carolina 10
1948 Texas 27, Alabama 7
1949 Oklahoma 14, North Carolina 6
1950 Oklahoma 35, Louisiana State 0
1951 Kentucky 13, Oklahoma 7

Cotton Bowl (Dallas, Tex.)

1937 Texas Christian 16, Marquette 6
1938 Rice 28, Colorado 14
1939 St. Mary's (Calif.) 20, Texas Tech 13
1940 Clemson 6, Boston College 3
1941 Texas A & M 13, Fordham 12
1942 Alabama 29, Texas A & M 21
1943 Texas 14, Georgia Tech 7
1944 Randolph Field 7, Texas 7
1945 Oklahoma A & M 34, Texas Christian 0
1946 Texas 40, Missouri 27
1947 Louisiana State 0, Arkansas 0
1948 Southern Methodist 13, Penn State 13
1949 Southern Methodist 21, Oregon 13
1950 Rice 27, North Carolina 13
1951 Tennessee 20, Texas 14

Orange Bowl (Miami, Fla.)

1933 Miami 7, Manhattan 0
1934 Duquesne 33, Miami 7
1935 Bucknell 26, Miami 0
1936 Catholic University 20, Mississippi 19
1937 Duquesne 13, Mississippi State 12
1938 Alabama Poly. 6, Michigan State 0
1939 Tennessee 17, Oklahoma 0
1940 Georgia Tech 21, Missouri 7
1941 Mississippi State 14, Georgetown 7
1942 Georgia 40, Texas Christian 26
1943 Alabama 37, Boston College 21
1944 Louisiana State 19, Texas A & M 14
1945 Tulsa 26, Georgia Tech 12
1946 Miami 13, Holy Cross 6
1947 Rice 8, Tennessee 0
1948 Georgia Tech 20, Kansas 14
1949 Texas 41, Georgia 28
1950 Santa Clara 21, Kentucky 13
1951 Clemson 15, Miami (Fla.) 14

Famous Series Records

Until 1883, when scoring by points was generally adopted, scores were kept by goals, touchdowns and safeties. Earlier results of Big Three games: 1873—Prin. 3, Yale 0; Harv. 4G, 2T, Yale 0; 1876—Yale 1G, Harv. 2T; Yale 10, Prin. 0; 1877—Yale 0, Prin. 0; Harv. 1G, 1T, Prin. 1T (Spring); Prin. 1G, 1T, Harv. 2T (Fall); 1878—Yale 1G, 7S, Harv. 13S; Prin. 1, Yale 0; Prin. 1T, Harv. 0; 1879—Harv. 4S, Yale 2S; Yale 0, Prin. 0; Prin. 1G, Harv. 0; 1880—Yale 1G, 1T, 2S, Harv. 9S; Yale 0, Prin. 0; Prin. 2G, 2T, Harv. 1G, 1T; 1881—Harv. 4S, Yale 0; Yale 0, Prin. 0; Harv. 0, Prin. 0; 1882—Yale 1G, 3T, Harv. 2S; Yale 2, Prin. 1; Harv. 1G, 1T, Prin. 1G.

Year	Harv.	Yale	Yale	Prin.	Harv.	Prin.	Army-Navy	
1883	2	23	6	0	7	26	..	..
1884	0	52	0	0	6	36	..	..
1885	..	..	5	6	..	..	..	..
1886	4	29	0	0	0	12	..	..
1887	8	17	12	0	12	0	..	..
1888	..	..	10	0	6	18	..	..
1889	0	6	0	10	15	41	..	..
1890	12	6	32	0	..	..	0	24
1891	0	10	19	0	..	..	32	16
1892	0	6	12	0	..	..	4	12
1893	0	6	0	6	..	..	4	6
1894	4	12	24	0	..	..	..	..
1895	..	..	20	10	4	12	..	..
1896	..	..	6	24	0	12	..	..
1897	0	0	6	0	..	..	..	..
1898	17	0	0	6	..	..	..	..
1899	0	0	10	11	..	..	17	5
1900	0	28	29	5	..	..	7	11
1901	22	0	12	0	..	..	11	5
1902	0	23	12	5	..	..	22	8
1903	0	16	6	11	..	..	40	5
1904	0	12	12	0	..	..	11	0
1905	0	6	23	4	..	..	6	6
1906	0	6	0	0	..	..	0	10
1907	0	12	12	10	..	..	0	6
1908	4	0	11	6	..	..	6	4
1909	0	8	17	0	..	..	..	..
1910	0	0	5	3	..	..	0	3
1911	0	0	3	6	6	8	0	3
1912	20	0	6	6	16	6	0	6
1913	15	5	3	3	3	0	22	9
1914	36	0	19	14	20	0	20	0
1915	41	0	13	7	10	6	14	0
1916	3	6	10	0	3	0	15	7
1919	10	3	6	13	10	10	0	6
1920	9	0	0	20	14	14	0	7
1921	10	3	13	7	3	10	0	7
1922	10	3	0	3	3	10	17	14
1923	0	13	27	0	5	0	0	0
1924	6	19	10	0	0	34	12	0
1925	0	0	12	25	0	36	10	3
1926	7	12	7	10	0	12	21	21
1927	0	14	14	6	..	..	14	9
1928	17	0	2	12	..	..	..	..
1929	10	6	13	0	..	..	..	..
1930	13	0	10	7	..	..	6	0
1931	0	3	51	14	..	..	17	7
1932	0	19	7	7	..	..	20	0
1933	19	6	2	27	..	..	12	7
1934	0	14	7	0	0	19	0	3
1935	7	14	7	38	0	35	28	6
1936	13	14	26	23	14	14	0	7
1937	13	6	26	0	34	6	6	0
1938	7	0	7	20	26	7	14	7
1939	7	20	7	13	6	9	0	10
1940	28	0	7	10	0	0	0	14
1941	14	0	6	20	6	4	6	14
1942	3	7	13	6	19	14	0	14
1943	..	..	27	6	..	..	0	13
1944	..	..	..	..	..	..	23	7
1945	0	28	20	14	..	..	32	13
1946	14	27	30	2	13	12	21	18
1947	21	31	0	17	7	33	21	0
1948	20	7	14	20	7	47	21	21
1949	6	29	13	21	13	33	38	0
1950	6	14	12	47	26	63	2	14
1951	21	21	0	27	13	54	..	..

Intercollegiate Football Records, 1951

NOTE—This compilation includes games played through Nov. 25. Those desiring later results may obtain them by writing to the Information Please Almanac, 444 Madison Ave., New York 22, N. Y., enclosing a stamped return envelope and stating scores wanted.

ADELPHI
0—Bridgeport..... 18
41—Mass. Maritime.... 0
0—New Haven T..... 34
21—Arnold..... 14
17—Upsala..... 7
39—Ursinus..... 19
46—New York Agric.... 6

ALABAMA
89—Delta State..... 0
7—Louisiana State.... 13
20—Vanderbilt..... 22
18—Villanova..... 41
13—Tennessee..... 27
7—Miss. State..... 0
16—Georgia..... 14
40—Miss. Southern.... 7
7—Georgia Tech..... 27
21—Florida..... 30

AMHERST
20—Colby..... 13
6—Rochester..... 21
35—Bowdoin..... 46
20—Coast Guard..... 28
21—Wesleyan..... 21
21—Tufts..... 13
27—Trinity..... 40
7—Williams..... 40

ARKANSAS
42—Okla. A. & M..... 7
30—Tempe State..... 13
7—Texas Christian.... 17
7—Baylor..... 9
16—Texas..... 14
12—Santa Clara..... 21
33—Texas A. & M..... 21
0—Rice..... 6
7—So. Methodist..... 47
24—Tulsa..... 7

ARMY
7—Villanova..... 21
14—Northwestern..... 20
14—Dartmouth..... 28
21—Harvard..... 22
14—Columbia..... 9
6—So. California..... 28
27—The Citadel..... 6
6—Pennsylvania..... 7

AUBURN
24—Vanderbilt..... 14
30—Wofford..... 14
14—Florida..... 13
7—Georgia Tech..... 27
21—Tulane..... 0
49—Louisiana Coll..... 0
14—Mississippi..... 39
14—Georgia..... 46
0—Clemson..... 34

BATES
0—Yale..... 48
7—Massachusetts..... 21
12—Springfield..... 34
13—Tufts..... 13
13—Northeastern..... 41
7—Maine..... 26
12—Bowdoin..... 27
6—Colby..... 13

BAYLOR
19—Houston..... 0
27—Tulane..... 14
9—Arkansas..... 7
40—Texas Tech..... 20
21—Texas A. & M..... 21
7—Texas Christian.... 20
18—Texas..... 6
42—Wake Forest..... 0
14—So. Methodist..... 13

BOSTON COLLEGE
6—Wake Forest..... 20
7—Mississippi..... 34
19—Fordham..... 35
13—Detroit..... 19
28—Georgia..... 35
21—Richmond..... 7
2—Clemson..... 21
20—Villanova..... 13

BOSTON UNIV.
25—Wm. & Mary..... 34
34—Penn State..... 40
39—Louisville..... 7
16—Camp Lejeune..... 0
27—Coll. of Pacific..... 12
13—Temple..... 20
52—New York U..... 6
35—Oregon..... 6
39—Wichita..... 6
19—Syracuse..... 26

BOWDOIN
47—Tufts..... 7
27—Wesleyan..... 9
46—Amherst..... 35
12—Williams..... 13
60—Colby..... 42
27—Bates..... 12
14—Maine..... 40

BROOKLYN COLL.
0—Maryland T..... 52
13—Kings Point..... 35
0—Alfred..... 61
0—R. I. State..... 52
0—New Haven T..... 39

BROWN
14—Temple..... 20
14—Yale..... 13
20—R. I. State..... 13
14—Colgate..... 32
6—Holy Cross..... 41
0—Princeton..... 12
21—Rutgers..... 28
21—Harvard..... 34
14—Columbia..... 29

BUCKNELL
41—Gettysburg..... 7
54—Muhlenberg..... 19
47—Lehigh..... 7
13—Kent State..... 7
62—Buffalo..... 32
40—Lafayette..... 21
28—Temple..... 7
21—Colgate..... 20
33—Delaware..... 6

CALIFORNIA
34—Santa Clara..... 0
35—Pennsylvania..... 0
55—Minnesota..... 14
42—Wash. St..... 35
14—So. California..... 21
35—Oregon State..... 14
7—U. C. L. A..... 21
37—Washington..... 28
28—Oregon..... 26
20—Stanford..... 7

CARNEGIE TECH
13—California T. (Pa.).. 14
47—Bethany..... 20
42—Akron..... 32
39—Allegheny..... 0
18—Case..... 13
1—Wash. & Jeff..... 0
7—Lehigh..... 34
35—Westminster..... 0

CINCINNATI
26—V. M. I..... 7
34—Kansas State..... 0
47—Tulsa..... 35
31—Idawall..... 0
38—Louisville..... 0
41—Western Reserve... 0
13—Hardin-Simmons.. 12
40—Ohio U..... 0
0—Xavier (Ohio)..... 26
19—Miami (Ohio)..... 14

THE CITADEL
7—Florida..... 27
7—South Carolina.... 26
34—Davidson..... 14
41—Newberry..... 7
14—Furman..... 35
35—Presbyterian..... 0
0—Virginia..... 39
6—Army..... 27
21—V. M. I..... 27
21—E. Carolina Coll.... 7

CLARKSON
7—Rochester..... 3
0—Alfred..... 21
8—Cortland T..... 13
0—Hofstra..... 41
7—St. Lawrence..... 61
0—R. P. I..... 20

CLEMSON
53—Presbyterian..... 6
20—Rice..... 14
6—N. C. State..... 0
7—Coll. of Pacific.... 21
0—South Carolina.... 20
21—Wake Forest..... 0
21—Boston College..... 2
34—Furman..... 14
34—Auburn..... 0

COLBY
13—Amherst..... 20
13—Upsala..... 7
0—Northwestern..... 33
0—Trinity..... 41
42—Bowdoin..... 60
0—Maine..... 24
13—Bates..... 6

COLGATE
47—Buffalo..... 13
18—Cornell..... 41
28—Western Reserve... 7
32—Brown..... 14
7—Yale..... 27
6—Holy Cross..... 34
20—Bucknell..... 21
0—Syracuse..... 9
26—Rutgers..... 21

COLORADO
28—Colorado A. & M... 13
14—Northwestern..... 35
35—Kansas..... 27
34—Missouri..... 13
20—Kansas State..... 7
14—Oklahoma..... 55
47—Iowa State..... 20
54—Utah..... 0
36—Nebraska..... 14
7—Mich. State..... 45

COLORADO A. & M.
13—Colorado..... 28
41—Colorado Mines.... 0
54—Colorado College... 13
14—Wyoming..... 7
20—Utah State..... 20
20—New Mexico..... 15
19—Brigham Young... 21
34—Montana..... 6
21—Utah..... 27
6—Denver..... 21

COLUMBIA
35—Harvard..... 0
24—Yale..... 0
13—Penn..... 28
9—Army..... 14
21—Cornell..... 20
21—Dartmouth..... 6
7—Navy..... 21
29—Brown..... 14

CONNECTICUT
27—Delaware..... 14
6—Williams..... 7
7—Springfield..... 0
19—Maine..... 49
6—Buffalo..... 20
20—New Hampshire... 0
0—American Int'l.... 6
21—R. I. State..... 6

CORNELL
21—Syracuse..... 14
41—Colgate..... 18
42—Harvard..... 6
27—Yale..... 0
15—Princeton..... 53
20—Columbia..... 21
20—Michigan..... 7
21—Dartmouth..... 13
0—Pennsylvania..... 7

DARTMOUTH
6—Fordham..... 14
14—Pennsylvania..... 33
28—Army..... 14
14—Syracuse..... 0
26—Harvard..... 20
14—Yale..... 10
6—Columbia..... 21
13—Cornell..... 21
0—Princeton..... 13

DELAWARE
7—Lehigh..... 0
14—Connecticut..... 27
47—West Chester T.... 20
46—Penn M. C..... 2
7—Temple..... 13
21—Muhlenberg..... 7
25—Lafayette..... 7
6—Bucknell..... 33

DENVER
41—Colorado College... 0
7—Drake..... 20
14—Wyoming..... 20
55—Montana..... 0
33—New Mexico..... 17
14—Utah..... 17
56—Brigham Young... 6
35—Coll. of Pacific.... 33
7—Utah State..... 14
21—Colo. A. & M..... 6

DETROIT
34—Toledo..... 32
7—Houston..... 33
6—Notre Dame..... 40
6—Drake..... 26
19—Boston College..... 13
7—Okla. A. & M..... 20
7—Bradley..... 6
7—Villanova..... 26
13—Marquette..... 26
9—Wichita..... 7

DRAKE
19—Abilene Christian.. 7
20—Denver..... 7
20—Bradley..... 14
39—Iowa State T..... 6
26—Detroit..... 6
14—Okla. A. & M..... 27
0—Iowa State..... 13
35—Great Lakes Naval. 20
14—Wichita..... 7

DREXEL
14—Ursinus..... 13
0—Gettysburg..... 21
16—Penn M. C..... 0
8—Dickinson..... 13
0—West. Maryland... 6
35—Swarthmore..... 6
0—West Chester T.... 13

DUKE

34—South Carolina.... 0
19—Pittsburgh..... 14
0—Tennessee..... 26
27—N. C. State..... 21
55—V. P. I..... 6
7—Virginia..... 30
14—Georgia Tech..... 14
13—Wake Forest..... 19
13—Wm. & Mary..... 14
19—North Carolina.... 7

FLORIDA

13—Wyoming..... 0
27—The Citadel..... 7
0—Georgia Tech..... 27
40—Loyola (L. A.)..... 7
13—Auburn..... 14
33—Vanderbilt..... 13
6—Kentucky..... 14
6—Georgia..... 7
6—Miami (Fla.)..... 21
30—Alabama..... 21

FORDHAM

34—Missouri..... 20
14—Dartmouth..... 6
20—Holy Cross..... 54
35—Boston College..... 10
26—San Francisco..... 32
20—Syracuse..... 33
7—Rutgers..... 13
35—Temple..... 6
41—New York U..... 0

FRANK. & MARSH.

6—Lebanon Valley.... 25
52—Johns Hopkins..... 7
27—Dickinson..... 6
7—West. Maryland... 13
0—Albright..... 6
53—Swarthmore..... 13
35—Ursinus..... 0
34—Wash. & Jeff..... 0
20—Gettysburg..... 40

GEORGIA

33—Geo. Washington.. 7
28—North Carolina.... 16
0—Miss. State..... 6
7—Maryland..... 43
0—Louisiana State.... 7
35—Boston College..... 28
14—Alabama..... 16
7—Florida..... 6
46—Auburn..... 14

GEORGIA TECH

21—So. Methodist..... 7
27—Florida..... 0
13—Kentucky..... 7
25—Louisiana State.... 7
27—Auburn..... 7
8—Vanderbilt..... 7
14—Duke..... 14
34—V. M. I..... 7
27—Alabama..... 7
34—Davidson..... 7

GEO. WASHINGTON

7—Georgia..... 33
0—Virginia..... 20
6—Maryland..... 33
38—V. P. I..... 13
13—Wake Forest..... 27
19—Furman..... 19
20—South Carolina.... 14
13—Kentucky..... 47

GETTYSBURG

7—Bucknell..... 41
6—West. Maryland... 13
21—Drexel..... 0
7—Lehigh..... 9
34—Muhlenberg..... 14
27—Johns Hopkins..... 7
34—Dickinson..... 7
21—Albright..... 20
40—F. and M..... 20

HAMILTON

12—Middlebury..... 42
14—Oberlin..... 40
21—Haverford..... 14
16—Kenyon..... 12
16—Hobart..... 14
12—Union..... 20

HARVARD

21—Springfield..... 13
6—Holy Cross..... 33
0—Columbia..... 35
6—Cornell..... 42
22—Army..... 21
20—Dartmouth..... 26
13—Princeton..... 54
34—Brown..... 21
21—Yale..... 21

HAVERFORD

7—Ursinus..... 20
7—Randolph-Macon.. 21
6—Juniata..... 34
14—Hamilton..... 21
6—Hobart..... 41
7—Susquehanna..... 27
7—Swarthmore..... 19

HOBART

7—St. Lawrence..... 20
0—Trinity..... 26
26—Kenyon..... 14
6—Union..... 27
41—Haverford..... 6
14—Hamilton..... 6

HOFSTRA

14—U. S. N. Prep..... 0
13—Brandeis..... 24
38—Moravian..... 12
41—Clarkson..... 0
13—Kings Point..... 0
0—St. Lawrence..... 20
7—Alfred..... 7
19—Upsala..... 0
34—Wagner..... 0

HOLY CROSS

33—Harvard..... 6
54—Fordham..... 20
14—Tulane..... 20
53—New York U..... 6
41—Brown..... 6
34—Colgate..... 6
39—Marquette..... 13
39—Quantico Marines. 0
41—Temple..... 7

IDAHO

0—Wyoming..... 28
7—San Francisco..... 28
6—Oregon State..... 34
12—Montana..... 9
40—San Jose State..... 7
13—Oregon..... 14
6—Wash. State..... 9
6—Arizona..... 13
19—Utah..... 40

ILLINOIS

27—U. C. L. A..... 3
14—Wisconsin..... 10
41—Syracuse..... 20
27—Washington..... 20
21—Indiana..... 0
7—Michigan..... 0
40—Iowa..... 13
0—Ohio State..... 0
3—Northwestern..... 0

INDIANA

6—Notre Dame..... 48
13—Pittsburgh..... 6
14—Michigan..... 33
32—Ohio State..... 10
0—Illinois..... 21
0—Wisconsin..... 6
14—Minnesota..... 16
26—Mich. State..... 30
13—Purdue..... 21

IOWA

16—Kansas State..... 0
30—Purdue..... 34
34—Pittsburgh..... 17
0—Michigan..... 21
21—Ohio State..... 47
20—Minnesota..... 20
13—Illinois..... 40
7—Wisconsin..... 34
20—Notre Dame..... 20

IOWA STATE

53—Wayne..... 21
33—Kansas..... 53
6—Marquette..... 6
32—Kansas State..... 6
21—Missouri..... 14
13—Drake..... 0
20—Colorado..... 47
27—Nebraska..... 34
6—Oklahoma..... 35

JOHNS HOPKINS

7—F. and M..... 52
37—Susquehanna..... 47
20—Hampden-Sydney.. 20
32—Randolph-Macon.. 38
7—Gettysburg..... 27
39—Swarthmore..... 6
34—Dickinson..... 13
6—West. Maryland... 33

KANSAS

27—Texas Christian.... 13
53—Iowa State..... 33
27—Colorado..... 35
26—Utah..... 7
21—Oklahoma..... 33
33—Kansas State..... 14
27—Nebraska..... 7
34—Loyola (L. A.)..... 26
27—Okla. A. & M..... 12

KANSAS STATE

0—Cincinnati..... 34
0—Iowa..... 16
6—Nebraska..... 6
6—Iowa State..... 32
7—Colorado..... 20
14—Kansas..... 33
0—Oklahoma..... 33
26—Tulsa..... 42
14—Missouri..... 12

KENTUCKY

72—Tennessee Tech.... 13
6—Texas..... 7
17—Mississippi..... 21
7—Georgia Tech..... 13
27—Miss. State..... 0
35—Villanova..... 13
14—Florida..... 6
32—Miami..... 0
37—Tulane..... 0
47—Geo. Washington.. 13
0—Tennessee..... 28

LAFAYETTE

6—Albright..... 12
12—Rutgers..... 47
0—Syracuse..... 46
14—Muhlenberg..... 7
7—Princeton..... 60
21—Bucknell..... 40
7—Delaware..... 25
0—Lehigh..... 32

LEBANON VALLEY

25—F. and M..... 6
7—Indiantown Gap... 12
12—Muhlenberg..... 6
14—Upsala..... 0
49—Moravian..... 0
7—Albright..... 6
15—Penn M. C..... 6
12—West. Maryland... 20
34—Juniata..... 0
20—Morris Harvey..... 27

LEHIGH

0—Delaware..... 7
20—Williams..... 6
7—Bucknell..... 47
9—Gettysburg..... 7
21—Rutgers..... 6
25—N. Y. U..... 20
3—Muhlenberg..... 2
34—Carnegie Tech..... 7
0—Lafayette..... 0

LOUISIANA STATE

13—Miss. Southern.... 0
13—Alabama..... 7
7—Rice..... 6
7—Georgia Tech..... 25
7—Georgia..... 0
0—Maryland..... 27
6—Mississippi..... 6
13—Vanderbilt..... 20
3—Miss. State..... 0
45—Villanova..... 7

LOYOLA (CALIF.)

28—San Diego Naval... 42
28—Coll. of Pacific..... 41
7—Florida..... 40
16—Santa Clara..... 20
13—San Jose State..... 12
46—Pepperdine..... 7
26—Kansas..... 34
14—Hardin-Simmons.. 13
2—San Fran..... 20

MAINE

12—Rhode Island..... 0
42—Vermont..... 0
0—New Hampshire..... 0
49—Connecticut..... 19
26—Bates..... 7
24—Colby..... 0
40—Bowdoin..... 14

MARQUETTE

48—South Dakota..... 6
6—Wisconsin..... 22
6—Iowa State..... 6
14—Michigan State.... 20
21—Tulsa..... 27
27—Miami (Ohio)..... 7
27—Coll. of Pacific.... 39
13—Holy Cross..... 39
26—Detroit..... 13
14—Santa Clara..... 27

MARYLAND

54—Wash. & Lee..... 14
33—Geo. Washington.. 6
43—Georgia..... 7
14—North Carolina.... 7
27—Louisiana State.... 0
35—Missouri..... 0
40—Navy..... 21
53—N. C. State..... 0
54—West Virginia..... 7

MASSACHUSETTS

21—Bates..... 7
13—Worcester Tech.... 14
7—Williams..... 14
40—R. I. State..... 7
7—Northeastern..... 20
6—Vermont..... 0
14—Springfield..... 42
6—Tufts..... 6

MIAMI (FLA.)

7—Tulane..... 21
35—Florida State..... 13
7—Purdue..... 0
32—Wash. & Lee..... 12
20—Mississippi..... 7
0—Kentucky..... 32
34—Chattanooga..... 7
21—Florida..... 6

MICHIGAN

0—Michigan State.... 25
13—Stanford..... 23
33—Indiana..... 14
21—Iowa..... 0
54—Minnesota..... 27
0—Illinois..... 7
7—Cornell..... 20
0—Northwestern..... 6
7—Ohio State..... 0

MICHIGAN STATE

6—Oregon State..... 0
25—Michigan..... 0
24—Ohio State..... 20
20—Marquette..... 14
32—Penn State..... 21
53—Pittsburgh..... 26
35—Notre Dame..... 0
30—Indiana..... 26
45—Colorado..... 7

MIDDLEBURY

6—Wesleyan..... 28
42—Hamilton..... 12
35—St. Lawrence..... 7
14—Tufts..... 13
19—Trinity..... 42
13—Norwich..... 20
40—Union..... 13
61—Vermont..... 12

MINNESOTA
20—Washington..... 25
14—California..... 55
7—Northwestern..... 21
39—Nebraska..... 20
27—Michigan..... 54
20—Iowa..... 20
16—Indiana..... 14
13—Purdue..... 19
6—Wisconsin..... 30

MISSISSIPPI
32—Memphis State.... 0
21—Kentucky..... 17
34—Boston College.... 7
20—Vanderbilt..... 34
25—Tulane..... 6
7—Miami..... 20
6—Louisiana State.... 6
39—Auburn..... 14
21—Tennessee..... 46

MISSISSIPPI STATE
32—Arkansas State.... 0
0—Tennessee..... 14
6—Georgia..... 0
0—Kentucky..... 27
0—Alabama..... 7
10—Tulane..... 7
27—Memphis State.... 20
0—Louisiana State.... 3

MISSOURI
20—Fordham..... 34
27—Okla. A. & M..... 26
0—So. Methodist..... 34
13—Colorado..... 34
14—Iowa State..... 21
35—Nebraska..... 19
0—Maryland..... 35
20—Oklahoma..... 34
12—Kansas State..... 14

MUHLENBERG
8—Upsala..... 13
19—Bucknell..... 54
6—Lebanon Valley.... 12
7—Lafayette..... 14
14—Gettysburg..... 34
7—Delaware..... 21
2—Lehigh..... 3
14—Scranton..... 0
9—Albright..... 13

NAVY
7—Yale..... 7
20—Princeton..... 24
14—Rice..... 21
7—Northwestern..... 16
0—Pennsylvania..... 14
0—Notre Dame..... 19
21—Maryland..... 40
21—Columbia..... 7

NEBRASKA
7—Texas Christian.... 28
6—Kansas State..... 6
7—Penn State..... 15
20—Minnesota..... 39
19—Missouri..... 35
7—Kansas..... 27
34—Iowa State..... 27
14—Colorado..... 36
0—Oklahoma..... 27

NEW HAMPSHIRE
33—Brandeis..... 20
0—R. I. State..... 27
0—Maine..... 0
20—Springfield..... 7
54—Vermont..... 6
0—Connecticut..... 20
60—Tufts..... 0
7—Kent State..... 0

NEW YORK U.
20—Princeton..... 54
21—Kings Point..... 13
0—Rutgers..... 55
6—Holy Cross..... 53
20—Lehigh..... 25
6—Boston U..... 52
6—Temple..... 34
0—Fordham..... 41

NORTH CAROLINA
21—N. C. State..... 0
16—Georgia..... 28
20—Texas..... 45
21—South Carolina.... 6
7—Maryland..... 14
7—Wake Forest..... 39
0—Tennessee..... 27
14—Virginia..... 34
7—Notre Dame..... 12
7—Duke..... 19

N. C. STATE
34—Catawba..... 0
0—North Carolina.... 21
6—Wake Forest..... 21
0—Clemson..... 6
21—Duke..... 27
28—Wm. & Mary..... 35
19—Virginia Tech..... 14
2—Louisville..... 26
31—Davidson..... 0
0—Maryland..... 53

NORTHWESTERN
35—Colorado..... 14
20—Army..... 14
21—Minnesota..... 7
16—Navy..... 7
0—Wisconsin..... 41
0—Ohio State..... 3
14—Purdue..... 35
6—Michigan..... 0
0—Illinois..... 3

NOTRE DAME
48—Indiana..... 6
40—Detroit..... 6
20—So. Methodist..... 27
33—Pittsburgh..... 0
30—Purdue..... 9
19—Navy..... 0
0—Michigan State.... 35
12—North Carolina.... 7
20—Iowa..... 20

OHIO STATE
7—So. Methodist..... 0
20—Michigan State.... 24
6—Wisconsin..... 6
10—Indiana..... 32
47—Iowa..... 21
3—Northwestern..... 0
16—Pittsburgh..... 14
0—Illinois..... 0
0—Michigan..... 7

OKLAHOMA
49—Wm. & Mary..... 7
7—Texas A. & M..... 14
7—Texas..... 9
33—Kansas..... 21
55—Colorado..... 14
33—Kansas State..... 0
34—Missouri..... 20
35—Iowa State..... 6
27—Nebraska..... 0

OKLA. A. & M.
7—Arkansas..... 42
26—Missouri..... 27
13—Wash. State..... 27
43—Wichita..... 0
27—Drake..... 14
20—Detroit..... 7
7—Tulsa..... 35
12—Kansas..... 27
7—Houston..... 31

OREGON
20—Stanford..... 27
39—Arizona..... 21
6—Coll. of Pacific.... 34
6—Washington..... 63
0—U. C. L. A..... 14
6—Wash. State..... 41
14—Idaho..... 13
6—Boston U..... 35
26—California..... 28
7—Oregon State..... 14

OREGON STATE
0—Michigan State.... 6
61—Utah..... 28
34—Idaho..... 6
14—So. California..... 18
14—Washington State.. 26
14—California..... 14
40—Washington..... 14
0—U. C. L. A..... 7
14—Stanford..... 35
14—Oregon..... 7

PENN STATE
40—Boston U..... 34
14—Villanova..... 20
15—Nebraska..... 7
21—Michigan State.... 32
13—West Virginia..... 7
0—Purdue..... 28
32—Syracuse..... 13
13—Rutgers..... 7
7—Pittsburgh..... 13

PENNSYLVANIA
0—California..... 35
39—Dartmouth..... 14
7—Princeton..... 13
28—Columbia..... 13
14—Navy..... 0
12—Wm. & Mary..... 20
7—Wisconsin..... 16
7—Army..... 6
7—Cornell..... 0

PITTSBURGH
14—Duke..... 19
6—Indiana..... 13
17—Iowa..... 34
0—Notre Dame..... 33
26—Michigan State.... 53
13—Rice..... 21
14—Ohio State..... 16
32—West Virginia..... 12
13—Penn State..... 7

PRINCETON
54—New York U..... 20
24—Navy..... 20
13—Pennsylvania..... 7
60—Lafayette..... 6
53—Cornell..... 15
12—Brown..... 0
54—Harvard..... 13
27—Yale..... 0
13—Dartmouth..... 0

PURDUE
0—Texas..... 14
54—Iowa..... 30
0—Miami (Fla.)..... 7
7—Wisconsin..... 31
9—Notre Dame..... 30
28—Penn State..... 0
35—Northwestern..... 14
19—Minnesota..... 13
21—Indiana..... 13

R. P. I.
13—Alfred..... 27
14—Union..... 21
13—Kings Point..... 20
7—Worcester Tech..... 12
7—Rochester..... 20
20—Clarkson..... 0
14—Coast Guard..... 35
20—Buffalo..... 30

R. I. STATE
0—Northeastern..... 21
0—Maine..... 12
27—New Hampshire.... 0
13—Brown..... 20
7—Massachusetts..... 40
25—Springfield..... 19
52—Brooklyn College.. 0
6—Connecticut..... 21

RICE
14—Clemson..... 20
6—Louisiana State.... 7
21—Navy..... 14
28—So. Methodist..... 7
6—Texas..... 14
21—Pittsburgh..... 13
6—Arkansas..... 0
28—Texas A. & M..... 13
6—Texas Christian.... 22

RICHMOND
13—Randolph-Macon.. 6
0—V. M. I..... 34
6—Wake Forest..... 56
0—West Virginia..... 24
25—Davidson..... 0
14—Wm. & Mary..... 20
7—Boston College..... 21
7—V. P. I..... 20
7—Wash. & Lee..... 39

ROCHESTER
31—Clarkson..... 7
10—Allegheny..... 6
21—Amherst..... 6
21—Union..... 7
7—Vermont..... 0
20—R. P. I..... 7
14—Oberlin..... 0
6—St. Lawrence..... 41

RUTGERS
47—Lafayette..... 12
7—Temple..... 14
55—New York U..... 0
6—Lehigh..... 21
13—Fordham..... 7
28—Brown..... 21
7—Penn State..... 13
21—Colgate..... 20

ST. BONAVENTURE
65—St. Francis (Pa.)... 0
6—Xavier (Ohio)..... 40
14—Dayton..... 35
20—John Carroll..... 13
14—Quantico Marines.. 21
22—Louisville..... 21
39—Youngstown..... 0
10—Camp Lejeune..... 20
28—St. Vincent..... 13

ST. LAWRENCE
55—Champlain..... 0
48—Union..... 0
20—Hobart..... 7
42—Middlebury..... 35
7—Alfred..... 45
61—Clarkson..... 7
20—Hofstra..... 0
41—Rochester..... 6

SAN FRANCISCO
39—San Jose State..... 2
28—Idaho..... 7
26—Camp Pendleton.... 0
42—San Jose State..... 7
32—Fordham..... 20
26—San Diego Naval... 7
26—Santa Clara..... 7
47—Coll. of Pacific.... 14
20—Loyola (L. A.)..... 2

SANTA CLARA
0—California..... 34
20—Washington St..... 34
17—U. C. L. A..... 44
20—Loyola (L. A.)..... 10
14—Stanford..... 21
21—Arkansas..... 12
7—San Francisco..... 26
7—San Jose State..... 7
27—Marquette..... 14

SOUTH CAROLINA
6—Duke..... 34
26—The Citadel..... 7
21—Furman..... 6
6—North Carolina.... 21
20—Clemson..... 0
14—Geo. Washington.. 20
34—West Virginia..... 13
27—Virginia..... 28
21—Wake Forest..... 6

SO. CALIFORNIA
31—Wash. State..... 21
17—Camp Pendleton... 27
41—San Diego Naval... 7
20—Washington..... 13
16—Oregon State..... 14
21—California..... 14
28—T. C. U..... 26
28—Army..... 6
20—Stanford..... 27
7—U. C. L. A..... 21

SO. METHODIST
7—Georgia Tech..... 21
0—Ohio State..... 7
34—Missouri..... 0
27—Notre Dame..... 20
7—Rice..... 28
13—Texas..... 20
14—Texas A. & M..... 14
67—Arkansas..... 7
13—Baylor..... 14

STANFORD

27—Oregon 20
26—San Jose State 13
23—Michigan 13
21—U. C. L. A. 7
21—Santa Clara 14
14—Washington 7
21—Wash. State 13
27—So. California 20
35—Oregon State 14
7—California 20

SUSQUEHANNA

47—Johns Hopkins 32
37—Wagner 20
34—National Agric. 6
21—Juniata 12
27—Haverford 7
19—Ursinus 14

SWARTHMORE

7—Juniata 13
20—Wagner 15
20—Ursinus 25
13—F. and M. 53
6—Johns Hopkins 39
6—Drexel 35
19—Haverford 7

*SYRACUSE

19—Temple 0
14—Cornell 21
46—Lafayette 0
20—Illinois 41
0—Dartmouth 14
33—Fordham 20
13—Penn State 32
9—Colgate 0
26—Boston U. 19

TEMPLE

0—Syracuse 19
20—Brown 14
14—Rutgers 7
47—Albright 6
13—Delaware 7
20—Boston U. 13
7—Bucknell 28
34—New York U. 6
6—Fordham 35
7—Holy Cross 41

TENNESSEE

14—Miss. State 0
26—Duke 0
42—Chattanooga 13
27—Alabama 13
68—Tennessee Tech. 0
27—North Carolina 0
60—Wash. & Lee 14
46—Mississippi 21
28—Kentucky 0

TEXAS

7—Kentucky 6
14—Purdue 0
45—No. Carolina 20
9—Oklahoma 7
14—Arkansas 16
14—Rice 6
20—So. Methodist 13
6—Baylor 18
32—Texas Christian 21

TEXAS A. & M.

21—U. C. L. A. 14
20—Texas Tech 7
14—Oklahoma 7
14—Texas Christian 20
21—Baylor 21
21—Arkansas 33
14—So. Methodist 14
13—Rice 28

TEXAS CHRISTIAN

13—Kansas 27
28—Nebraska 7
17—Arkansas 7
19—Tex. Tech 3
20—Texas A. & M. 14
26—So. Calif. 28
20—Baylor 7
21—Texas 32
23—Rice 6

TRINITY

27—Dickinson 7
19—Coast Guard Acad. 27
26—Hobart 0
41—Colby 0
42—Middlebury 19
40—Amherst 27
3—Wesleyan 6
42—Tufts 6

TUFTS

7—Bowdoin 47
7—Northeastern 39
13—Bates 13
13—Middlebury 14
0—Williams 48
13—Amherst 21
0—New Hampshire 60
6—Massachusetts 6
6—Trinity 42

TULANE

21—Miami 7
14—Baylor 27
20—Holy Cross 14
6—Mississippi 25
0—Auburn 21
7—Miss. State 10
0—Kentucky 37
14—Vanderbilt 10
48—S. E. Louisiana 7

TULSA

58—Hawaii 0
35—Cincinnati 47
46—Houston 27
27—Marquette 21
33—Wichita 0
35—Okla. A. & M. 7
42—Kansas State 26
21—Texas Tech 14
7—Arkansas 24

U. C. L. A.

14—Texas A. & M. 21
13—Illinois 27
44—Santa Clara 17
7—Stanford 21
14—Oregon 0
21—California 7
7—Oregon State 0
20—Washington 20
21—So. California 7

UNION

6—St. Lawrence 48
21—R. P. I. 14
7—Rochester 21
32—Champlain 25
27—Hobart 6
0—Williams 40
13—Middlebury 40
20—Hamilton 32

UTAH

55—Montana State 6
27—Arizona 7
28—Oregon State 61
7—Brigham Young 6
7—Kansas 26
17—Denver 14
0—Wyoming 13
28—Utah State 20
0—Colorado 54
27—Colo. A. & M. 21
40—Idaho 19

UTAH STATE

27—Tempe State 33
21—Wichita 7
0—Wyoming 37
20—Colo. A. & M. 20
19—Montana 6
20—Utah 28
27—Brigham Young 28
14—Denver 7

VANDERBILT

22—Middle Tenn. 7
14—Auburn 24
22—Alabama 20
34—Mississippi 20
13—Florida 33
7—Georgia Tech 8
19—Chattanooga 14
20—Louisiana State 13
10—Tulane 14
13—Memphis State 7

VERMONT

7—St. Michael's 41
0—Maine 42
0—Norwich 7
0—Rochester 7
6—New Hampshire 54
0—Massachusetts 6
12—Middlebury 51

VILLANOVA

21—Army 7
20—Penn State 14
41—Alabama 18
13—Kentucky 35
33—Houston 27
26—Detroit 7
13—Boston College 20
7—Louisiana State 45

VIRGINIA

20—Geo. Washington 0
33—Virginia Tech 0
14—Wash. & Lee 42
34—V. M. I. 14
30—Duke 7
39—The Citadel 0
34—North Carolina 14
28—South Carolina 27
46—Wm. & Mary 0

V. M. I.

7—Cincinnati 26
29—Wofford 6
34—Richmond 0
20—Wm. & Mary 7
14—Virginia 34
34—Catawba 14
35—Davidson 13
7—Georgia Tech 34
27—The Citadel 21
20—Virginia Tech 7

VIRGINIA TECH

20—Davidson 32
0—Virginia 33
13—Geo. Washington 38
6—Duke 55
14—N. C. State 19
0—Wash. & Lee 60
7—Wm. & Mary 28
20—Richmond 14
7—V. M. I. 20

WAGNER

19—Arnold 7
15—Swarthmore 20
20—Susquehanna 37
12—Ursinus 13
19—Upsala 7
0—Penn M. C. 13
0—Kings Point 56
0—Hofstra 34

WAKE FOREST

20—Boston College 6
21—N. C. State 6
56—Richmond 6
6—Wm. & Mary 7
27—Geo. Washington 13
39—North Carolina 7
6—Clemson 21
19—Duke 13
0—Baylor 42
6—South Carolina 21

WASHINGTON

58—Montana 7
25—Minnesota 20
13—So. California 20
63—Oregon 6
20—Illinois 27
7—Stanford 14
14—Oregon State 40
28—California 37
20—U. C. L. A. 20
25—Wash. State 27

WASH. & JEFF.

29—Denison 21
7—Case 38
16—Geneva 27
7—Thiel 6
0—Carnegie Tech 18
0—F. and M. 34

WASH. & LEE

25—Furman 7
14—Maryland 54
34—West Virginia 0
42—Virginia 14
12—Miami (Fla.) 32
34—Davidson 0
60—Virginia Tech 0
14—Tennessee 60
7—Louisville 14
39—Richmond 7

WASHINGTON STATE

21—So. California 31
34—Santa Clara 20
27—Okla. A. & M. 14
35—California 42
26—Oregon State 14
41—Oregon 6
13—Stanford 21
9—Idaho 6
10—Montana 47
27—Washington 25

WESLEYAN

26—Middlebury 6
9—Bowdoin 27
14—Coast Guard Acad. 28
28—Upsala 14
21—Amherst 21
0—Amer. Int'l. 6
7—Williams 33
6—Trinity 3

WESTERN MARYLAND

13—Gettysburg 6
13—F. and M. 7
33—Dickinson 12
20—Hampden-Sydney 15
6—Drexel 0
20—Lebanon Valley 12
33—Johns Hopkins 6

WEST VIRGINIA

20—Waynesburg 9
18—Furman 7
0—Wash. & Lee 34
24—Richmond 0
89—Geneva 0
7—Penn State 13
35—Western Reserve 7
13—South Carolina 34
12—Pittsburgh 32
7—Maryland 54

WILLIAM & MARY

34—Boston U. 25
7—Oklahoma 49
7—V. M. I. 20
7—Wake Forest 6
35—N. C. State 28
20—Richmond 14
20—Pennsylvania 12
28—Virginia Tech 7
14—Duke 13
0—Virginia 46

WILLIAMS

6—Lehigh 20
7—Connecticut 6
14—Massachusetts 7
13—Bowdoin 12
48—Tufts 0
40—Union 0
33—Wesleyan 7
40—Amherst 7

WISCONSIN

22—Marquette 6
10—Illinois 14
6—Ohio State 6
31—Purdue 7
41—Northwestern 0
6—Indiana 0
16—Penn 7
34—Iowa 7
30—Minnesota 6

YALE

48—Bates 0
7—Navy 7
13—Brown 14
0—Columbia 14
0—Cornell 27
27—Colgate 7
10—Dartmouth 14
0—Princeton 27
21—Harvard 21

Professional Football

NATIONAL LEAGUE CHAMPIONS

Source: National Football League.

Year	Team	Won	Lost	Tied	Pct.
1921	Bears (Staley's)	10	1	1	.909
1922	Canton Bulldogs	10	0	2	1.000
1923	Canton Bulldogs	11	0	1	1.000
1924	Cleveland Bulldogs	7	1	1	.875
1925	Chicago Cardinals	11	2	1	.846
1926	Frankford Yellow Jackets	14	1	1	.933
1927	New York Giants	11	1	1	.917
1928	Providence Steamrollers	8	1	2	.888
1929	Green Bay Packers	12	0	1	1.000
1930	Green Bay Packers	11	3	1	.786
1931	Green Bay Packers	12	2	0	.857
1932	Chicago Bears	7	1	6	.875
1933	*Chicago Bears (W)	10	2	1	.833
1933	New York Giants (E)	11	3	0	.786
1934	*New York Giants (E)	8	5	0	.615
1934	Chicago Bears (W)	13	0	0	1.000
1935	*Detroit Lions (W)	7	3	2	.700
1935	New York Giants (E)	9	3	0	.750
1936	*Green Bay Packers (W)	10	1	1	.909
1936	Boston Redskins (E)	7	5	0	.587
1937	*Washington Redskins (E)	8	3	0	.727
1937	Chicago Bears (W)	9	1	1	.900
1938	*New York Giants (E)	8	2	1	.800
1938	Green Bay Packers (W)	8	3	0	.727
1939	*Green Bay Packers (W)	9	2	0	.818
1939	New York Giants (E)	9	1	1	.900
1940	*Chicago Bears (W)	8	3	0	.727
1940	Washington Redskins (E)	9	2	0	.818
1941	*Chicago Bears (W)	10	1	0	.909
1941	New York Giants (E)	8	3	0	.727
1942	*Washington Redskins (E)	10	1	0	.909
1942	Chicago Bears (W)	11	0	0	1.000
1943	*Chicago Bears (W)	8	1	1	.889
1943	Washington Redskins (E)	6	3	1	.667
1944	*Green Bay Packers (W)	8	2	0	.800
1944	New York Giants (E)	8	1	1	.889
1945	*Cleveland Rams (W)	9	1	0	.900
1945	Washington Redskins (E)	8	2	0	.800
1946	*Chicago Bears (W)	8	2	1	.800
1946	New York Giants (E)	7	3	1	.700
1947	*Chicago Cardinals (W)	9	3	0	.750
1947	Philadelphia Eagles (E)	9	4	0	.692
1948	*Philadelphia Eagles (E)	9	2	1	.818
1948	Chicago Cardinals (W)	11	1	0	.917
1949	*Philadelphia Eagles (E)	11	1	0	.917
1949	Los Angeles Rams (W)	8	2	2	.800
1950	*Cleveland Browns (A)	11	2	0	.846
1950	Los Angeles Rams (N)	10	3	0	.769

* Won title play-off. (W) Western Division champion. (E) Eastern Division champion. League divided into American (A) and National (N) conferences in 1950.

CHAMPIONSHIP PLAY-OFF RESULTS

1933 Chicago Bears 23, New York 21.
1934 New York 30, Chicago Bears 13.
1935 Detroit 26, New York 7.
1936 Green Bay 21, Boston 6.
1937 Washington 28, Chicago Bears 21.
1938 New York 23, Green Bay Packers 17.
1939 Green Bay 27, New York 0.
1940 Chicago Bears 73, Washington 0.
1941 Chicago Bears 37, New York 9.
1942 Washington 14, Chicago Bears 6.
1943 Chicago Bears 41, Washington 21.
1944 Green Bay 14, New York 7.
1945 Cleveland 15, Washington 14.
1946 Chicago Bears 24, New York 14.
1947 Chicago Cardinals 28, Philadelphia 21.
1948 Philadelphia 7, Chicago Cardinals 0.
1949 Philadelphia 14, Los Angeles 0.
1950 Cleveland 30, Los Angeles 28.

ALL-AMERICA CONFERENCE

Champions

Year	Team	Won	Lost	Tied	Pct.
1946	*Cleveland Browns (W)	12	2	0	.857
1946	New York Yankees (E)	10	3	1	.769
1947	*Cleveland Browns (W)	12	1	1	.923
1947	New York Yankees (E)	11	2	1	.846
1948	*Cleveland Browns (W)	14	0	0	1.000
1948	Buffalo Bills (E)	8	7	0	.533
1949	Cleveland Browns	9	1	2	.900

* Won title play-off.

TITLE PLAY-OFF RESULTS

1946 Cleveland Browns 14, New York Yankees 9.
1947 Cleveland Browns 14, New York Yankees 3.
1948 Cleveland Browns 49, Buffalo Bills 7.
1949 Cleveland Browns 21, San Francisco 49ers 7.

Mercersburg (Pa.) Academy won the 1951 National A. A. U. prep school track and field championship with 23 points and Boston Trade was first in the high school division with 10½. Both meets were held at Madison Square Garden on Feb. 17.

Sedgman–McGregor in Tennis Sweep

When Frank Sedgman and Ken McGregor of Australia defeated Mervyn Rose and Don Candy, also of Australia, 10–8, 6–4, 4–6, 7–5, in the final of the 1951 U. S. doubles championship, they became the first tandem in tennis to capture the world's four major doubles crowns in a single year. Sedgman and McGregor won the championships of Australia, France and England before taking the U. S. title.

Mrs. Zaharias Honored

Mrs. Mildred D. (Babe) Zaharias, Louise Suggs, Patty Berg and Betty Jameson, all professionals, were elected to the women's golf Hall of Fame in 1951. This quartet joins the group of six amateurs named in 1950 for charter membership to the hall, sponsored by the Women's Professional Golf Association and located in Augusta, Ga. The first six picked were Beatrix Hoyt, Margaret Curtis, Alexa Stirling, Dorothy Campbell Hurd, Virginia Van Wie and Glenna Collett Vare.

ARCHERY

ARCHERY goes back through song and story and classic legend to the primeval days when bows and arrows were means of obtaining food and also weapons in warfare, but the invention of gunpowder in the 14th Century brought about a complete change in the hunting field and in the ranks of war. Archery survived only as a sport. One of the oldest annual sporting events in England is the archery contest for "The Ancient Scorton Arrow" (a little silver dart) that has been held each year in Yorkshire since 1673. The tradition of archery survived in many European countries and many tournaments were held each year until World War II obliterated them. The American Indians, of course, used the bow and arrow until guns came into their hands through early explorers and settlers. Organized archery as a sport in the United States began with the formation of a club called the United Bowmen of Philadelphia in 1828. The sport languished through the Civil War period but was revived by the formation of the National Archery Association in 1878.

NATIONAL CHAMPIONS, 1951

(At Los Angeles, Aug. 13–17)

Source: Lawrence E. Briggs, Secretary, National Archery Association of the United States.

Target

Men—Russ Reynolds, Cleveland
Women—Jean Lee, Springfield, Mass.
Jr. boys'—Jerry Hash, Long Beach, Calif.
Jr. girls'—Laurette Young, Detroit
Intermediate boys'—David Peterson, Long Beach, Calif.
Beginner boys'—Robert Easton, Los Angeles
Beginner girls'—Catherine Richards, Laguna Beach, Calif.
Men's crossbow—Walter Palkowski, Los Angeles
Women's crossbow—Dixie Tyler, Fullerton, Calif.
International Long Round—W. N. Davidson, Phoenix
Hereford Round—Ann Corby, Denville, N. J.
Men's team—Phoenecian Archers, Phoenix
Women's team—United Archers, Whittier, Calif.

Flight

Men—Harry Drake, Lakeside, Calif.
Women—Mrs. Henry Bitzenburger, Los Angeles
Jr. boys'—Jim Easton, Los Angeles

Clout

Men (180 yd.)—Max Hamilton, Phoenix
Women (140 yd.)—Jean Richards, Laguna Beach
Women (120 yd.)—Jean Lee
Jr. boys' (120 yd.)—Bert Corley, Long Beach
Jr. girls' (120 yd.)—Lorna Price, Phoenix
Intermediate boys'—Paul Doran, Torrance, Calif.
Beginner boys'—Robert Carroll, Los Angeles
Crossbow—Walter Palkowski

Wand

Men—Russ Reynolds
Women—Iva Martin
Jr. boys'—Jerry Hash
Jr. girls'—Laurette Young
Beginner boys'—Robert Easton

Doan Field Archery Champion

Harold Doan of Adrian, Mich., won the men's free-style championship in the sixth national field archery tournament with a score of 844. The 1951 competition was held at Watkins Glen, N. Y.

Jouglard, Mrs. Ladewig Top Bowlers

Lou Jouglard of Detroit was voted "bowler of the year" by the National Bowling Writers Association in 1951. Mrs. Marion Ladewig of Grand Rapids, Mich., was the organization's women's choice for the second successive year.

NATIONAL RECORDS

MEN

Event	Recordholder	Score	Year
Double York	Stan Overby	283-1755	1950
Single York	Stan Overby	139-893	1950
	Russ Reynolds	143-893	1951
Double American	Stan Overby	180-1494	1950
Single American	Russ Reynolds	90-752	1948
International	Russ Reynolds	143-911	1950
100-yd. York	Larry Hughes	72-434	1948
80-yd. York	Russ Reynolds	48-356	1949
60-yd. York	Ralph Miller	24-196	1935
	Pat Chambers	24-196	1938
60-yd. American	Stan Overby	30-246	1950
50-yd. American	Stan Overby	30-258	1950
40-yd. American	Russ Reynolds	30-264	1949

WOMEN

Double National	Jean Lee	144-1138	1950
Single National	Jean Lee	72-574	1950
Double Columbia	Artie Palkowski	144-1196	1951
Single Columbia	Ann Weber	72-612	1950
Double American	Jean Lee	180-1476	1950
Single American	Jean Lee	90-740	1950
Herefore Round	Jean Richards	143-921	1949
60-yd. National	Jean Lee	24-202	1950
50-yd. Columbia	Ann Weber	24-198	1950
	Jean Lee	24-198	1950
40-yd. Columbia	Ann Weber	24-206	1950
	Charlotte Cashner	24-206	1950
30-yd. Columbia	Jean Lee*	24-214	1949-50
60-yd. American	Jean Lee	30-238	1950
50-yd. American	Jean Lee	30-248	1950
40-yd. American	Jean Lee	30-260	1950

* Also Artie Palkowski, 1951.

Flight

REGULAR STYLE

	Distance yd.	ft.	in.	
Men—Jack Stewart	640	0	0	1949
Women—Evelyn Haines	505	0	0	1950
Jr. boys'—Edward Berg, Jr.	447	0	0	1949
Jr. girls'—Peggy Dunaway	427	2	9½	1947

FREE STYLE

Men—Paul Berry	719	2	0	1949
Women—Mrs. Cecil Modlin	575	2	0	1949

Clout

Men (180 yd.)—Max Hamilton	36-288	1951
Women (140 yd.)—Jean Richards	36-280	1951
Women (120 yd.)—Jean Lee	36-310	1951

Team

Men's club—Santa Monica	380-2708	1950
Women's club—United Archers	380-2640	1951
Men (60 yd.)—Russ Reynolds	96-766	1948
Women (60 yd.)—Jean Lee	96-742	1948
Women (50 yd.)—Mildred Morrison	96-740	1950

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Compiled by

ROBERT E. GRAYSON

Director, Special Libraries Association; Librarian, *New York Herald Tribune*

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We have endeavored to prepare the INDEX for easy use by professional researchers and the average Mr. and Mrs. Public. This goal presents many difficulties and we modestly hope we have succeeded. Where we have failed we would appreciate your help. If you cannot find anything quickly and you think it's our fault, kindly send suggestions and criticisms to:

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